U.S. DEPARTMENT OF COMMERCE

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Effect of Ambient Temperature on Vehicle Emissions and Performance Factors Appendix C: Gas Chromatographic Results

Gulf Research and Development Co.
Cheswick, PA

Prepared for

Environmental Protection Agency
Ann Arbor, MI

Sep 79

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Air

EPA

Effect of Ambient Temperature On Vehicle Emissions And Performance Factors

Appendix C
Gas Chromatographic Results

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16. ABSTRACT

Ambient temperatures have been reported to affect automotive emissions and fuel economies since 1966. Federal automobile emission standards and the measured fuel economies are currently based on results obtained using the 1975 Federal Test Procedure and the Highway Fuel Economy Test. Both tests must be conducted at ambient temperatures from 68°F (20°C) to 86°F (30°C). Since cars in service must start and run over a much broader temperature range than this, the U.S. Environmental Protection Agency wanted to know how well the various car age groups and emission control technologies available today would perform at the more extreme ambient temperatures using the above test procedures as well as other specialized tests. It was also desired to know how the use of a car's air conditioner would affect exhaust emissions and fuel economies.

This report presents the results of exhaust emissions (regulated and unregulated) and fuel economies associated with fourteen selected vehicles tested at ambient temperatures ranging from 0°F (-18°C) to 110°F (43°C) using the various test procedures.

17. KEY WORDS AND DOCUMENT ANALYSIS

a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group
Vehicle emissions*, Vehicle fuel economy*, Ambient temperatures*, Air conditioning, Short tests, Federal Test Procedure, Highway Fuel Economy Test, Sulfate Emission Test, New York City Cycle, Driveability, Catalyst temperatures		

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Appendix C

Gas Chromatographic Results

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Office of Mobile Source Air Pollution Control
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Ann Arbor, Michigan 48105

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APPENDIX C

GAS CHROMATOGRAPHIC RESULTS

This Appendix gives the gas chromatographic results obtained in this program. Separate analyses were made for each of the three phases of the Federal Test Procedure.

Each report contains a summary of the major components by group as well as the results on 75 individual peaks typically found. Symbols were used to name the compounds because of space limitations. These symbols are defined in Table C-1.

While many of the peaks represent individual compounds, others represent two or more compounds that were not separated, as shown in the table.

At the top of each report the total parts per million carbons (ppmc) by flame ionization detector is reported along with the total ppmc obtained by summing the gas chromatographic results. All of the data have been corrected to correspond to the FID analysis which is taken as the base.

TABLE C-1

LIST OF HYDROCARBONS AND CORRESPONDING SYMBOLS

SYMBOL	HYDROCARBONS
SATURATES	Paraffins
NAPTHENES	Cycloparaffins
C3+C3=	Propane + propene
C=C=C	Propadiene
METHACETYL	Methyl acetylene
B1+IB	1-Butene + isobutane
NC4	Butane
TBUTENE-2	Trans butene-2
22MPROPANE	Dimethyl propane
CBUTENE-2	Cis butene-2
B=1=3	Butadiene-1,3
B=1=2	Butadiene-1,2
3MB1	3-Methyl butene-1
2MBUT-1	2-Methyl butene-1
TPENT=2	Trans pentene-2
2MB=1=3	2-Methyl butadiene-1,3 (isoprene)
CISPENT-2	Cis pentene-2
2MBUT-2	2-Methyl butene-2
23MBUTANE	2,3-Dimethyl butane
2MPENTANE	2-Methyl pentane
3MPENTANE	3-Methyl pentane
CYPENTENE	Cyclopentene
TC6=3,=2	Trans hexene-2 and -3
CC6=3	Cis hexene-3
2MPENTENE-2	2-Methyl pentene-2
MCYP43M2C5	Methyl cyclopentane and 4,3-dimethyl pentene-2
24MPENTANE	2,4-Dimethyl pentane
CYHEXANE	Cyclohexane
2MC6+23MC5	2-Methyl hexane and 2,3-dimethyl pentane
24MHEXANE	2,4-Dimethyl hexane
3MHEXANE	3-Methyl hexane
224MPENTAN	2,2,4-Trimethyl pentane (isooctane)
MCYHEXANE	Methyl Cyclohexane
25MHEXANE	2,5-Dimethyl hexane
24MC6+233M	2,4-Dimethyl hexane + 2,3,3-trimethyl pentane
234MC5	2,3,4-Trimethyl pentane
23MC6+4MC7	2,3-Dimethyl hexane + 4-Methyl heptane
34MHEXANE	3,4-Dimethyl hexane
3MHEPTANE	3-Methyl heptane
255MC6	2,5,5-Trimethyl hexane
223MC6	2,2,3-Trimethyl hexane
ETCYHEXANE	Ethyl cyclohexane
ET BENZENE	Ethyl benzene
M+PXYLENE	Meta + paraxylene

TABLE C-1 (Continued)

2+4MC8	2 and 4-Methyl octane
OXYLENE	Orthoxylene
NNONANE	Nonane
IPRBENZENE	Isopropyl benzene
NPRBENZENE	Normal propyl benzene
1M3ET BENZ	1-Methyl,3-ethyl benzene
135MEBENZ	1,3,5-Trimethyl benzene
1M2ETBENZ	1-Methyl, 2-ethyl benzene
124MBENZ	1,2,4-Trimethyl benzene
SBUBENZENE	Secondary butyl benzene
123MBENZE	1,2,3-Trimethyl benzene
13EBENZENE	1,3-Diethyl benzene
NBUBENZENE	N Butyl benzene
1M3PRBENZ	1-Methyl, 3-propyl benzene

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10001
DATE RUN: 10 03 77
CAR: 1977 FORD LTD 49 STATE VIN: 7H63M157057 DRIVER: G S HYLK FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 0

HYDROCARBON CONCENTRATION BAG1 BAG2 BAG3
FID PPMC 1011.5 97.4 127.7
GC PPMC 844.6 86.5 84.2

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
				MAJOR COMPONENTS								
METHANE	58.1	7.5	7.7	6.88	8.62	9.12	967	163	150	601	101	93
SATURATES	394.3	36.6	39.7	46.69	42.28	47.20	5882	714	694	3655	443	432
OLEFINS	169.6	15.1	18.6	20.08	17.45	22.11	2471	288	318	1536	179	197
ACETYLENE	22.8	0.1	0.3	2.70	0.14	0.35	308	2	5	191	1	3
NAPTHENES	21.2	1.5	1.9	2.51	1.72	2.21	309	28	32	192	18	20
AROMATICS	128.2	19.6	13.0	15.18	22.69	15.41	1755	351	208	1090	218	129
BENZENE	29.2	6.1	6.1	3.46	7.10	7.19	395	109	96	246	68	60
TOLUENE	38.7	4.0	3.8	4.58	4.62	4.49	529	72	61	329	44	38
C8+AROM	60.4	9.5	3.1	7.15	10.97	3.73	839	173	51	522	107	32
UNKNOWN	50.4	6.1	3.0	0.00	0.00	0.00	702	112	49	436	70	31
				INDIVIDUAL COMPONENTS								
METHANE	58.1	7.5	7.7	6.88	8.62	9.12	967	163	150	601	101	93
ETHYLENE	53.1	5.0	5.6	6.28	5.79	6.70	773	95	96	481	59	60
ETHANE	5.3	1.6	1.7	0.63	1.86	2.00	83	33	31	51	20	19
ACETYLENE	21.7	0.1	0.3	2.57	0.14	0.35	293	2	5	182	1	3
C3 + C3=	33.1	4.1	5.2	3.92	4.76	6.15	482	78	88	299	49	55
C=C=C	0.8	0.0	0.0	0.09	0.00	0.00	11	0	0	7	0	0
METHACETYL	1.1	0.0	0.0	0.13	0.00	0.00	15	0	0	9	0	0
ISOBUTANE	6.8	1.1	1.2	0.81	1.31	1.38	103	22	21	64	14	13
N1 + 1B	23.0	2.8	3.5	2.72	3.24	4.15	335	53	60	208	33	37
NC4 +B=1=3	38.2	5.6	6.6	4.52	6.48	7.88	576	111	117	358	69	73
TBUTENE-2	5.7	0.5	0.6	0.68	0.55	0.76	83	9	11	52	6	7
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	5.2	0.3	0.5	0.61	0.34	0.55	75	6	8	47	4	5
B=1=2	0.1	0.0	0.0	0.01	0.00	0.00	2	0	0	1	0	0
3MB1	1.3	0.1	0.1	0.15	0.07	0.14	18	1	2	11	1	1
ISOPENTANE	49.5	5.9	7.0	5.86	6.83	8.29	742	116	123	461	72	76
PENTENE-1	2.0	0.0	0.1	0.24	0.00	0.07	30	0	1	19	0	1
2MBUT-1	4.5	0.2	0.2	0.53	0.21	0.28	65	3	4	40	2	2
NPENTANE	7.7	0.8	1.0	0.91	0.90	1.17	115	15	17	71	9	11
2MB=1=3	0.0	0.1	0.1	0.00	0.14	0.07	0	2	1	0	1	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10001
DATE RUN: 10 03 77
CAR: 1977 FORD LTD 49 STATE VIN: 7H63H157057 DRIVER: G S HYEK FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	5.0	0.2	0.3	0.59	0.21	0.35	73	3	5	45	2	3
CISPENT-2	2.8	0.1	0.1	0.33	0.07	0.14	40	1	2	25	1	1
2MBUT-2	9.2	0.4	0.6	1.08	0.48	0.76	133	8	11	83	5	7
22MBUTANE	0.3	0.1	0.5	0.04	0.07	0.55	4	1	8	3	1	5
CYPENTENE	2.3	0.2	0.2	0.28	0.21	0.28	33	3	4	21	2	2
3MPENTENE	9.2	0.8	0.9	1.08	0.90	1.04	133	15	15	83	9	9
CYPENTANE	0.0	0.0	0.3	0.00	0.00	0.41	0	0	6	0	0	4
23MBUTANE	20.8	2.1	2.3	2.47	2.41	2.76	311	41	41	193	25	25
2MPENTANE	12.2	1.0	1.3	1.44	1.17	1.52	181	20	22	113	12	14
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
HEXENE-1	3.0	0.1	0.2	0.35	0.14	0.21	43	2	3	27	1	2
N HEXANE	5.9	0.4	0.5	0.70	0.48	0.55	88	8	8	55	5	5
TC6=3,=2	5.0	0.2	0.2	0.59	0.21	0.28	73	3	4	45	2	2
CC6=3	1.8	0.1	0.1	0.21	0.07	0.07	26	1	1	16	1	1
2MPENTENE2	2.7	0.1	0.1	0.32	0.07	0.14	39	1	2	25	1	1
MCYP43M2C5	9.8	0.8	0.8	1.16	0.90	0.97	143	15	14	89	9	9
24MPENTANE	16.6	1.4	1.4	1.96	1.59	1.66	246	27	24	153	17	15
BENZENE	29.2	6.1	6.1	3.46	7.16	7.19	395	109	96	246	68	60
CYHEXANE	3.3	0.2	0.2	0.39	0.28	0.28	48	5	4	30	3	2
2MC6+23MC5	47.4	3.5	3.7	5.61	4.07	4.35	705	68	64	438	43	40
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	10.3	0.7	0.8	1.22	0.83	0.90	153	14	13	95	9	8
224MPENTAN	76.7	6.3	6.3	9.08	7.24	7.46	1137	122	109	707	76	68
NHEPTANE	8.4	0.4	0.3	0.99	0.41	0.41	124	7	6	77	4	4
MCYHEXANE	6.2	0.4	0.3	0.73	0.41	0.41	90	7	6	56	4	4
25MHEXANE	10.5	0.4	0.5	1.24	0.48	0.55	155	8	8	97	5	5
24MC6+233M	5.9	0.5	0.5	0.70	0.62	0.62	88	10	9	54	6	6
234MC5	26.7	1.5	1.5	3.17	1.72	1.80	397	29	26	247	18	16
TOLUENE	38.7	4.0	3.8	4.58	4.62	4.49	529	72	61	329	44	38
23MC6+4MC7	9.0	0.6	0.6	1.06	0.69	0.69	133	12	10	83	7	6

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10001
DATE RUN: 10 03 77
CAR: 1977 FORD LTD 49 STATE VIN: 7H63M157057 DRIVER: G S MYLK FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	7.7	0.5	0.5	0.91	0.62	0.55	114	10	8	71	6	5
3MHEPTANE	7.7	0.5	0.5	0.91	0.55	0.55	114	9	8	71	6	5
255MC6	8.3	0.6	0.5	0.98	0.69	0.62	123	12	9	76	7	6
N OCTANE	2.8	0.2	0.2	0.34	0.21	0.21	42	3	3	26	2	2
223MC6	1.3	0.1	0.1	0.15	0.14	0.07	19	2	1	12	1	1
ETCYHEXANE	1.9	0.1	0.1	0.22	0.14	0.14	27	2	2	17	1	1
ET BENZENE	6.7	0.3	0.1	0.80	0.34	0.14	93	5	2	58	3	1
M+PXYLENE	20.7	1.4	1.4	2.45	1.66	1.66	286	26	23	178	16	14
2+4MC8	4.2	0.3	0.3	0.49	0.34	0.35	62	6	5	38	4	3
O XYLENE	8.5	0.6	0.5	1.01	0.69	0.62	117	11	8	73	7	5
N NONANE	3.7	0.2	0.2	0.44	0.28	0.28	55	5	4	34	3	3
IPRBENZENE	2.3	0.2	0.1	0.28	0.21	0.14	33	3	2	20	2	1
NPRBENZENE	1.2	0.1	0.3	0.14	0.14	0.41	17	2	6	10	1	4
1M3ETBENZ	6.0	0.8	0.0	0.71	0.90	0.00	84	14	0	52	9	0
135MEBENZ	2.1	0.5	0.2	0.25	0.55	0.28	29	9	4	18	5	2
1M2ETBENZ	3.4	0.6	0.4	0.40	0.69	0.48	47	11	7	29	7	4
124MBENZ	5.5	1.8	0.0	0.65	2.07	0.00	76	32	0	47	20	0
SBUBENZENE	0.7	0.4	0.0	0.09	0.41	0.00	10	7	0	6	4	0
N DECANE	0.5	0.2	0.0	0.06	0.28	0.00	7	5	0	4	3	0
123MBENZ	1.0	0.7	0.0	0.11	0.76	0.00	13	12	0	8	7	0
INDANE	0.4	0.3	0.0	0.05	0.34	0.00	6	5	0	4	3	0
13EBENZENE	0.2	0.2	0.0	0.02	0.21	0.00	3	3	0	2	2	0
NBUBENZENE	0.8	0.7	0.0	0.10	0.83	0.00	12	13	0	7	8	0
1M3PRBENZ	0.7	1.0	0.0	0.09	1.17	0.00	10	18	0	6	11	0
UNKNOWNS	50.4	6.1	3.0	5.96	7.10	3.59	702	112	49	436	70	31

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10002
DATE RUN: 10 05 77
CAR: 1977 FORD LTD 49 STATE VIN: 7H63H157057 DRIVEN: G S HYEK FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 0

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	1103.9	101.7	146.3
GC PPMC	983.9	96.8	122.8

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	58.1	8.1	10.0	5.91	8.41	8.13	911	168	153	566	104	95
SATURATES	476.9	38.8	53.3	48.47	40.04	43.38	6687	715	730	4156	445	454
OLEFINS	199.3	15.4	25.1	20.26	15.90	20.45	2730	278	336	1697	173	209
ACETYLENE	32.8	0.1	0.5	3.33	0.12	0.39	417	2	6	259	1	4
NAPTHENES	24.0	2.4	3.6	2.44	2.44	2.92	328	43	48	204	26	30
AROMATICS	135.9	23.5	20.9	13.81	24.31	17.04	1748	398	263	1086	248	164
BENZENE	31.2	6.0	6.9	3.17	6.22	5.65	396	101	86	246	63	54
TOLUENE	43.1	3.8	4.6	4.38	3.96	3.75	555	65	58	345	40	36
C8+AROM	61.6	13.7	9.4	6.26	14.14	7.64	805	236	120	500	146	75
UNKNOWN	56.9	8.5	9.4	0.00	0.00	0.00	745	147	121	463	91	75
INDIVIDUAL COMPONENTS												
METHANE	58.1	8.1	10.0	5.91	8.41	8.13	911	168	153	566	104	95
ETHYLENE	49.8	5.2	7.4	5.06	5.36	5.99	682	94	98	424	58	61
ETHANE	5.6	1.7	2.0	0.57	1.71	1.66	83	32	29	51	20	18
ACETYLENE	30.8	0.1	0.5	3.13	0.12	0.39	392	2	6	244	1	4
C3 + C3=	36.3	4.2	6.5	3.69	4.39	5.26	498	77	86	309	48	54
C=C=C	1.4	0.0	0.0	0.14	0.00	0.00	18	0	0	11	0	0
METHACETYL	2.0	0.0	0.0	0.20	0.00	0.00	25	0	0	16	0	0
ISOBUTANE	9.9	1.1	1.7	1.01	1.10	1.36	140	20	23	87	12	14
B1 + IB	23.1	2.7	4.0	2.34	2.80	3.26	316	49	54	196	30	33
NC4 +B=1=3	49.8	6.0	9.3	5.06	6.22	7.59	707	112	129	439	70	80
TBUTENE-2	7.6	0.5	0.9	0.77	0.55	0.73	104	10	12	65	6	7
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	7.6	0.4	0.7	0.77	0.37	0.54	104	6	9	65	4	5
B=1=2	0.6	0.0	0.0	0.06	0.00	0.00	8	0	0	5	0	0
3MB1	2.6	0.1	0.1	0.26	0.06	0.10	35	1	2	22	1	1
ISOPENTANE	66.1	6.4	9.9	6.72	6.58	8.03	931	118	136	579	73	84
PENTLNE-1	3.5	0.1	0.2	0.35	0.06	0.15	47	1	2	29	1	1
2MBUT-1	6.7	0.2	0.5	0.68	0.24	0.39	91	4	6	57	3	4
NPENTANE	10.2	0.9	1.4	1.03	0.91	1.12	143	16	19	89	10	12
2MB=1=3	1.0	0.0	0.2	0.10	0.00	0.19	13	0	3	8	0	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10002
DATE RUN: 10 05 77
CAR: 1977 FORD LTD 49 STATE VIN: 7D63M157057 DRIVER: G S MYER FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	8.2	0.2	0.5	0.83	0.24	0.44	112	4	7	70	3	4
CISPENT-2	4.4	0.2	0.2	0.45	0.24	0.19	61	4	3	38	3	2
2MBUT-2	14.4	0.0	1.1	1.47	0.00	0.93	198	0	15	123	0	9
22MBUTANE	1.1	0.5	0.1	0.11	0.49	0.10	15	9	2	10	5	1
CYPENTENE	1.8	0.1	0.2	0.16	0.12	0.19	24	2	3	15	1	2
3MPENTENE	11.6	0.9	1.3	1.17	0.91	1.07	158	16	18	98	10	11
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	27.5	2.0	2.9	2.79	2.07	2.39	386	37	40	240	23	25
2MPENTANE	15.6	1.2	1.7	1.59	1.22	1.36	219	22	23	136	14	14
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
HEXENE-1	4.5	0.1	0.2	0.46	0.06	0.15	62	1	2	39	1	1
N HEXANE	7.4	0.5	0.8	0.75	0.55	0.63	103	10	11	64	6	7
TC6=3,=2	7.9	0.2	0.4	0.80	0.18	0.34	108	3	6	67	2	3
CC6=3	2.5	0.2	0.4	0.25	0.18	0.29	34	3	5	21	2	3
2MPENTENE2	4.0	0.1	0.3	0.40	0.12	0.24	54	2	4	34	1	2
MCYP4,3M2C5	12.4	0.9	1.3	1.26	0.91	1.02	169	16	17	105	10	10
24MPENTANE	21.0	1.4	1.9	2.13	1.46	1.56	293	26	26	182	16	16
BENZENE	31.2	6.0	6.9	3.17	6.22	5.65	396	101	86	246	63	54
CYMEXANE	3.0	0.6	1.1	0.30	0.61	0.93	41	11	15	25	7	9
2MC6+23MC5	56.1	3.7	5.0	5.70	3.84	4.04	785	68	68	488	42	42
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	12.1	0.8	1.1	1.23	0.79	0.88	170	14	15	105	9	9
224MPENTAN	86.2	0.0	7.7	8.76	0.00	6.23	1202	0	104	747	0	65
NHEPTANE	10.9	6.0	0.7	1.10	6.15	0.58	152	110	10	94	68	6
MCYHEXANE	6.6	0.6	1.0	0.67	0.61	0.83	91	11	14	56	7	8
25MHEXANE	11.2	0.2	0.0	1.14	0.24	0.00	156	4	0	97	3	0
24MC6+233M	7.0	1.1	1.3	0.71	1.10	1.02	98	19	17	61	12	11
234MC5	29.6	1.8	2.2	3.01	1.89	1.75	413	34	29	257	21	18
TOLUENE	43.1	3.8	4.6	4.38	3.96	3.75	555	65	58	345	40	36
23MC6+4MC7	10.1	0.6	0.8	1.02	0.67	0.63	140	12	11	87	7	7

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10002
DATE RUN: 10 05 77
CAR: 1977 FORD LTD 49 STATE VIN: 7H63H157057 DRIVER: G S HYEK FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	8.5	0.5	0.6	0.86	0.55	0.49	118	10	8	73	6	5
3MHEPTANE	8.7	0.5	0.6	0.89	0.49	0.49	122	9	8	76	5	5
255MC6	9.0	0.5	0.6	0.92	0.55	0.49	126	10	8	78	6	5
N OCTANE	3.5	0.2	0.2	0.35	0.18	0.15	48	3	2	30	2	2
223MC6	1.3	0.3	0.3	0.13	0.30	0.24	18	5	4	11	3	3
ETCYHEXANE	2.0	0.3	0.2	0.20	0.30	0.15	28	5	2	17	3	1
ET BENZENE	6.8	0.6	0.4	0.70	0.67	0.34	89	11	5	55	7	3
M+PXYLENE	22.9	2.2	1.8	2.33	2.25	1.46	297	37	23	185	23	14
2+4MC8	4.3	0.4	0.3	0.44	0.43	0.24	60	8	4	37	5	3
O XYLENE	8.7	1.1	0.7	0.88	1.10	0.58	113	18	9	70	11	6
N NONANE	3.9	0.4	0.2	0.39	0.43	0.19	54	8	3	33	5	2
IPRBENZENE	2.4	0.3	0.2	0.25	0.30	0.15	31	5	2	20	3	1
NPRBENZENE	1.2	0.2	0.1	0.12	0.24	0.10	15	4	2	9	3	1
1M3ETBENZ	5.8	1.9	0.9	0.58	1.95	0.73	75	32	11	47	20	7
135MEBENZ	2.1	0.9	0.5	0.21	0.98	0.39	27	16	6	17	10	4
1M2ETBENZ	3.0	0.9	0.5	0.30	0.98	0.44	39	16	7	24	10	4
124MBENZ	5.3	3.1	1.7	0.54	3.17	1.41	70	53	22	43	33	14
SBUBENZENE	0.6	0.3	0.2	0.06	0.30	0.19	8	5	3	5	3	2
N DECANE	0.3	0.1	0.2	0.03	0.12	0.15	4	2	2	2	1	2
123MBENZ	0.9	0.6	0.5	0.09	0.61	0.44	11	10	7	7	6	4
INDANE	0.5	0.2	0.2	0.05	0.18	0.19	7	3	3	4	2	2
13EBENZENE	0.3	0.2	0.2	0.03	0.18	0.15	4	3	2	2	2	1
NBUBENZENE	0.6	0.5	0.5	0.06	0.55	0.44	8	9	7	5	6	4
1M3PRBENZ	0.6	0.6	0.8	0.06	0.67	0.63	8	11	10	5	7	6
UNKNOWNS	56.9	8.5	9.4	5.78	8.78	7.69	745	147	121	463	91	75

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10003
DATE RUN: 10 06 77
CAR: 1977 FORD LTD 49 STATE VIN: 7B63H157057 DRIVER: G S HYLK FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 0

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	957.9	92.8	170.0
GC PPMC	855.1	80.5	131.9

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	55.3	6.3	8.6	6.47	7.83	6.48	829	143	143	515	89	89
SATURATES	389.7	35.0	64.7	45.58	43.44	49.06	5231	711	971	3251	442	603
OLEFINS	181.8	13.4	26.2	21.26	16.68	19.86	2384	267	384	1481	166	239
ACETYLENE	26.9	0.1	0.4	3.14	0.07	0.27	327	1	5	203	1	3
NAPTHENES	19.9	1.3	3.1	2.33	1.60	2.33	261	25	45	162	16	28
AROMATICS	125.6	17.9	21.8	14.69	22.19	16.55	1547	333	300	961	207	187
BENZENE	29.6	5.2	7.3	3.47	6.45	5.60	361	96	99	224	59	61
TOLUENE	36.4	3.6	5.5	4.25	4.42	4.16	448	66	76	278	41	47
C8+AROM	59.6	9.1	9.1	6.97	11.31	6.89	746	173	127	464	107	79
UNKNOWN	55.8	6.6	7.2	0.00	0.00	0.00	700	125	101	435	78	63
INDIVIDUAL COMPONENTS												
METHANE	55.3	6.3	8.6	6.47	7.83	6.48	829	143	143	515	89	89
ETHYLENE	51.9	4.3	7.0	6.07	5.29	5.32	680	85	103	423	53	64
ETHANE	6.2	1.5	1.9	0.72	1.89	1.43	86	32	30	54	20	18
ACETYLENE	24.8	0.1	0.4	2.90	0.07	0.27	302	1	5	188	1	3
C3 + C3=	36.3	3.5	6.2	4.24	4.35	4.70	475	70	91	295	43	56
C=C=C	1.3	0.0	0.0	0.16	0.00	0.00	17	0	0	10	0	0
METHACETYL	2.1	0.0	0.0	0.24	0.00	0.00	26	0	0	16	0	0
ISOBUTANE	8.0	1.1	1.8	0.94	1.31	1.39	109	22	28	68	13	17
B1 + IB	22.8	2.2	4.0	2.67	2.76	3.04	299	44	59	186	27	37
NC4 +B=1=3	40.4	5.8	10.4	4.73	7.18	7.87	549	119	158	341	74	98
TBUTENE-2	6.7	0.5	1.0	0.79	0.58	0.76	88	9	15	55	6	9
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	6.7	0.3	0.8	0.78	0.36	0.63	88	6	12	54	4	8
B=1=2	0.5	0.0	0.0	0.05	0.00	0.00	6	0	0	4	0	0
3MB1	2.0	0.1	0.2	0.23	0.07	0.13	26	1	3	16	1	2
ISOPENTANE	52.5	5.8	11.3	6.14	7.25	8.54	708	119	170	440	74	106
PENTENE-1	2.8	0.1	0.2	0.32	0.07	0.13	36	1	3	22	1	2
2MBUT-1	5.4	0.2	0.5	0.63	0.22	0.40	71	3	8	44	2	5
NPENTANE	8.0	0.8	1.6	0.94	1.02	1.21	108	17	24	67	10	15
2MB=1=3	1.1	0.2	0.2	0.13	0.22	0.13	14	3	3	9	2	2

EFFECT OF AMBIENT TEMPLRATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10003
DATE RUN: 10 06 77
CAR: 1977 FORD LTD 49 STATE VIN: 7H63H157057 DRIVER: G S HYEK FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	2.4	0.2	0.7	0.28	0.29	0.54	31	5	10	20	3	6
CISPENT-2	3.6	0.1	0.4	0.42	0.07	0.27	47	1	5	29	1	3
2MBUT-2	11.8	0.4	1.5	1.38	0.51	1.12	155	8	22	96	5	13
22MBUTANE	0.4	0.1	0.1	0.05	0.07	0.04	6	1	1	3	1	1
CYPENTENE	1.6	0.1	0.3	0.19	0.15	0.22	21	2	4	13	1	3
3MPENTENE	9.4	1.0	1.6	1.10	1.23	1.21	124	20	23	77	12	15
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	22.1	2.0	3.7	2.59	2.47	2.77	297	40	55	185	25	34
2MPENTANE	12.6	1.1	2.1	1.47	1.38	1.57	169	23	31	105	14	19
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
HEXENE-1	3.9	0.1	0.4	0.45	0.15	0.27	51	2	5	31	1	3
N HEXANE	6.0	0.4	0.9	0.70	0.51	0.72	80	8	14	50	5	9
TC6=3,=2	6.3	0.2	0.6	0.74	0.22	0.49	83	3	10	52	2	6
CC6=3	2.1	0.1	0.3	0.24	0.07	0.22	27	1	4	17	1	3
2MPENTENE2	3.2	0.1	0.4	0.38	0.07	0.27	42	1	5	26	1	3
MCYP43M2C5	9.9	0.7	1.5	1.16	0.87	1.12	130	14	22	81	9	13
24MPENTANE	16.9	1.3	2.5	1.98	1.60	1.88	226	26	37	141	16	23
BENZENE	29.6	5.2	7.3	3.47	6.45	5.50	361	96	99	224	59	61
CYHEXANE	2.7	0.1	0.6	0.32	0.15	0.49	35	2	10	22	1	6
2MC6+23MC5	45.0	3.2	6.3	5.26	3.99	4.74	602	65	94	374	40	58
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	9.8	0.6	1.4	1.15	0.80	1.03	132	13	20	82	8	13
224MPENTAN	73.4	5.8	9.9	8.58	7.18	7.51	979	117	148	609	73	92
NHEPTANE	8.7	0.3	0.8	1.01	0.36	0.63	116	6	12	72	4	8
MCYHEXANE	5.4	0.3	0.7	0.63	0.36	0.54	71	6	10	44	4	6
25MHEXANE	5.9	0.4	1.0	0.69	0.51	0.76	79	8	15	49	5	9
24MC6+233M	5.7	0.5	1.1	0.66	0.58	0.81	76	9	16	47	6	10
234MC5	25.2	1.4	2.9	2.95	1.74	2.19	337	28	43	209	18	27
TOLUENE	36.4	3.6	5.5	4.25	4.42	4.16	448	66	76	278	41	47
23MC6+4MC7	8.4	0.5	1.1	0.99	0.65	0.81	113	11	16	70	7	10

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10003
DATE RUN: 10 06 77
CAR: 1977 FORD LTD 49 STATE VIN: 7B63H157057 DRIVER: G S HYEK FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	7.1	0.5	0.9	0.84	0.58	0.67	95	9	13	59	6	8
3MHEPTANE	7.6	0.4	0.9	0.88	0.51	0.67	101	8	13	63	5	8
255MC6	7.5	0.5	0.9	0.88	0.65	0.72	100	11	14	62	7	9
N OCTANE	3.0	0.1	0.4	0.35	0.15	0.27	40	2	5	25	1	3
223MC6	1.3	0.1	0.2	0.15	0.07	0.13	17	1	3	11	1	2
ETCYHEXANE	1.9	0.2	0.2	0.23	0.22	0.18	25	3	3	16	2	2
ET BENZENE	6.4	0.4	0.6	0.75	0.51	0.45	79	8	8	49	5	5
M+PXYLENE	20.4	1.5	2.5	2.38	1.69	1.88	253	29	34	157	18	21
2+4MC8	3.9	0.4	0.4	0.45	0.44	0.31	51	7	6	32	4	4
O XYLENE	7.9	0.7	0.9	0.92	0.87	0.72	98	13	13	61	8	8
N NONANE	3.5	0.4	0.5	0.41	0.44	0.36	47	7	7	29	4	4
IPRBENZENE	2.3	0.2	0.3	0.27	0.29	0.22	29	4	4	18	3	3
NPRBENZENE	1.4	0.1	0.1	0.16	0.15	0.09	18	2	2	11	1	1
1M3ETBENZ	5.7	0.9	0.9	0.67	1.09	0.67	72	17	12	45	10	8
135MEBENZ	2.2	0.5	0.4	0.26	0.58	0.31	28	9	6	17	5	4
1M2ETBENZ	2.9	0.5	0.6	0.34	0.65	0.45	37	10	8	23	6	5
124MBENZ	5.7	1.9	1.3	0.67	2.39	0.98	72	36	18	45	23	11
SBUBENZENE	0.8	0.2	0.2	0.09	0.29	0.13	10	4	2	6	3	2
N DECANE	0.6	0.1	0.1	0.07	0.15	0.04	8	2	1	5	1	1
123MBENZ	1.3	0.5	0.3	0.15	0.65	0.22	16	10	4	10	6	3
INDANE	0.4	0.2	0.1	0.05	0.22	0.09	5	3	2	3	2	1
13EBENZENE	0.3	0.1	0.1	0.03	0.15	0.04	4	2	1	2	1	1
NBUBENZENE	0.9	0.5	0.4	0.10	0.65	0.27	11	10	5	7	6	3
1M3PRBENZ	1.0	0.8	0.5	0.12	0.94	0.36	12	14	7	8	9	4
UNKNOWNS	55.8	6.6	7.2	6.53	8.19	5.46	700	125	101	435	78	63

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10201
DATE RUN: 09 30 77
CAR: 1977 FORD LTD 49 STATE VIN: 7A63M157057 DRIVER: SWARTZLANDER FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 20

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	912.9	57.5	108.4
GC PPMC	708.0	44.6	79.9

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
MAJOR COMPONENTS												
METHANE	46.3	6.3	8.8	6.53	14.11	11.06	784	143	150	487	89	93
SATURATES	329.9	21.9	38.1	46.60	49.10	47.68	5004	445	578	3110	276	359
OLEFINS	148.7	7.4	17.2	21.01	16.67	21.47	2203	147	254	1369	92	158
ACETYLENE	17.3	0.0	0.3	2.45	0.00	0.40	238	0	4	148	0	3
NAPTHENES	17.4	0.7	1.3	2.46	1.50	1.60	258	13	19	161	8	12
AROMATICS	100.7	7.4	12.4	14.22	16.67	15.46	1401	138	172	871	86	107
BENZENE	23.7	3.8	5.8	3.35	8.41	7.29	326	69	80	202	43	50
TOLUENE	27.9	2.1	3.5	3.95	4.65	4.41	369	39	49	241	24	30
CA+AROM	49.1	1.6	3.0	6.93	3.60	3.77	694	30	43	431	19	26
UNKNOWN	47.6	0.9	1.9	0.00	0.00	0.00	675	17	26	419	10	16
INDIVIDUAL COMPONENTS												
METHANE	46.3	6.3	8.8	6.53	14.11	11.06	784	143	150	487	89	93
ETHYLENE	43.1	2.6	5.6	6.09	5.86	7.05	639	52	84	397	32	52
ETHANE	5.8	1.4	1.6	0.82	3.15	2.24	93	30	28	58	19	18
ACETYLENE	16.4	0.0	0.3	2.31	0.00	0.40	225	0	4	140	0	3
C3 + C3=	30.5	2.2	5.0	4.31	4.95	6.25	452	44	74	281	27	46
C=C=C	1.1	0.0	0.0	0.15	0.00	0.00	15	0	0	9	0	0
METHACETYL	0.9	0.0	0.0	0.13	0.00	0.00	13	0	0	8	0	0
ISOBUTANE	6.3	0.7	1.3	0.89	1.65	1.60	97	15	20	60	9	12
B1 + IB	18.1	1.1	2.7	2.56	2.55	3.37	268	23	40	167	14	25
NC4 +B=1=3	31.2	4.2	7.2	4.40	9.31	8.97	478	85	110	297	53	66
TBUTENE-2	4.9	0.3	0.6	0.69	0.60	0.72	72	5	9	45	3	5
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	4.9	0.1	0.4	0.70	0.30	0.48	73	3	6	46	2	4
B=1=2	0.3	0.0	0.0	0.04	0.00	0.00	4	0	0	3	0	0
3MB1	1.5	0.0	0.1	0.22	0.00	0.08	23	0	1	14	0	1
ISOPENTANE	42.0	3.8	7.0	5.93	8.56	8.81	639	78	107	397	48	67
PENTENE-1	1.9	0.0	0.1	0.27	0.00	0.08	28	0	1	17	0	1
2MBUT-1	3.7	0.0	0.2	0.52	0.00	0.24	55	0	3	34	0	2
NPENTANE	6.5	0.6	1.0	0.92	1.35	1.20	100	12	15	62	8	9
2MB=1=3	1.6	0.1	0.1	0.22	0.15	0.16	23	1	2	14	1	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10201
DATE RUN: 09 30 77
CAR: 1977 FORD LTD 49 STATE VIN: 7B63H157057 DRIVER: SWARTZLANDER FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	4.6	0.1	0.3	0.65	0.30	0.32	68	3	4	42	2	2
CISPENT-2	2.5	0.0	0.1	0.35	0.00	0.08	37	0	1	23	0	1
2MBUT-2	8.7	0.2	0.5	1.23	0.45	0.64	129	4	8	80	2	5
22MBUTANE	0.5	0.1	0.1	0.07	0.15	0.08	8	1	1	5	1	1
CYPENTENE	1.3	0.1	0.2	0.18	0.15	0.24	19	1	3	12	1	2
3MPENTENE	8.3	0.5	0.9	1.17	1.20	1.12	123	11	13	76	7	8
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	19.3	1.4	2.5	2.73	3.15	3.13	293	29	38	182	18	24
2MPENTANE	11.1	0.7	1.3	1.57	1.50	1.60	169	14	19	105	8	12
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
HEXENE-1	3.1	0.1	0.2	0.43	0.15	0.24	45	1	3	28	1	2
N HEXANE	4.9	0.3	0.4	0.70	0.60	0.56	75	5	7	47	3	4
TC6=3,=2	4.7	0.0	0.2	0.66	0.00	0.24	69	0	3	43	0	2
CC6=3	1.5	0.0	0.1	0.22	0.00	0.08	23	0	1	14	0	1
2MPENTENE2	2.4	0.0	0.1	0.34	0.00	0.08	36	0	1	22	0	1
MCYP43M2C5	8.5	0.4	0.7	1.20	0.90	0.88	126	8	10	78	5	6
24MPENTANE	14.7	0.7	1.3	2.07	1.50	1.60	222	14	19	138	8	12
BENZENE	23.7	3.8	5.8	3.35	8.41	7.29	326	69	80	202	43	50
CYHEXANE	2.2	0.1	0.3	0.32	0.30	0.32	33	3	4	21	2	2
2MC6+23MC5	39.3	1.8	3.2	5.55	4.05	4.01	594	37	48	369	23	30
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	8.3	0.4	0.7	1.17	0.90	0.88	126	8	11	78	5	7
224MPENTAN	62.3	3.3	5.5	8.80	7.36	6.89	939	66	83	584	41	52
NHEPTANE	6.6	0.1	0.3	0.93	0.30	0.40	100	3	5	62	2	3
MCYHEXANE	4.7	0.1	0.3	0.66	0.30	0.32	69	3	4	43	2	2
25MHEXANE	4.8	0.2	0.4	0.68	0.45	0.48	73	4	6	45	3	4
24MC6+233M	5.2	0.3	0.4	0.73	0.60	0.56	78	5	7	49	3	4
234MC5	24.3	0.7	1.3	3.43	1.65	1.68	366	15	20	228	9	13
TOLUENE	27.9	2.1	3.5	3.95	4.65	4.41	389	39	49	241	24	30
23MC6+4MC7	7.2	0.3	0.5	1.02	0.60	0.64	108	5	8	67	3	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10201
DATE RUN: 09 30 77
CAR: 1977 FORD LTD 49 STATE VIN: 7B63H157057 DRIVER: SWARTZLANDER FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	6.2	0.3	0.4	0.88	0.60	0.56	94	5	7	59	3	4
3MHEPTANE	6.4	0.2	0.4	0.90	0.45	0.56	96	4	7	60	3	4
25DMC6	6.5	0.3	0.4	0.92	0.60	0.56	98	5	7	61	3	4
N OCTANE	2.4	0.1	0.1	0.34	0.15	0.08	36	1	1	23	1	1
223MC6	1.2	0.0	0.1	0.17	0.00	0.16	19	0	2	12	0	1
ETCYHEXANE	2.1	0.0	0.1	0.29	0.00	0.08	31	0	1	19	0	1
ET BENZENE	6.1	0.1	0.3	0.87	0.30	0.40	86	3	4	53	2	3
M+PXYLENE	15.7	0.6	1.3	2.21	1.35	1.60	220	11	18	137	7	11
24DMC8	3.5	0.1	0.2	0.49	0.30	0.24	52	3	3	33	2	2
O XYLENE	6.2	0.3	0.4	0.88	0.60	0.56	88	5	6	54	3	4
N NONANE	3.0	0.1	0.1	0.42	0.15	0.16	45	1	2	28	1	1
IPHBENZENE	2.1	0.1	0.1	0.29	0.15	0.08	29	1	1	18	1	1
NPRBENZENE	1.3	0.0	0.0	0.18	0.00	0.00	18	0	0	11	0	0
1M3ETBENZ	4.9	0.1	0.3	0.70	0.30	0.32	70	3	4	43	2	2
135MEBENZ	1.9	0.1	0.1	0.27	0.15	0.16	27	1	2	17	1	1
1M2ETBENZ	2.8	0.1	0.2	0.40	0.30	0.24	40	3	3	25	2	2
124MBENZ	5.1	0.2	0.3	0.72	0.45	0.40	71	4	5	44	2	3
SBUBENZENE	0.6	0.0	0.0	0.08	0.00	0.00	8	0	0	5	0	0
N DECANE	0.2	0.0	0.0	0.03	0.00	0.00	4	0	0	2	0	0
123MBENZ	0.9	0.0	0.0	0.12	0.00	0.00	12	0	0	8	0	0
INDANE	0.6	0.0	0.0	0.09	0.00	0.00	9	0	0	6	0	0
13EBENZENE	0.2	0.0	0.0	0.03	0.00	0.00	3	0	0	2	0	0
NBUBENZENE	0.2	0.0	0.0	0.03	0.00	0.00	3	0	0	2	0	0
1M3PRBENZ	0.3	0.0	0.0	0.04	0.00	0.00	4	0	0	3	0	0
UNKNOWNS	47.6	0.9	1.9	6.72	1.95	2.32	675	17	26	419	10	16

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10202
DATE RUN: 10 07 77
CAR: 1977 FORD LTD 49 STATE VIN: 7B63M157057 DRIVER: G S MYEK FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 20

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	652.6	66.7	132.9
GC PPMC	563.1	66.2	126.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	35.1	6.6	8.9	6.23	9.96	7.02	535	121	120	333	75	74
SATURATES	265.3	29.0	59.8	47.12	43.81	47.36	3626	475	723	2253	295	449
OLEFINS	123.9	10.6	22.8	22.00	16.05	18.02	1653	170	268	1028	106	167
ACETYLENE	11.9	0.3	0.3	2.11	0.48	0.28	147	5	4	92	3	2
NAPTHENES	13.2	1.0	3.1	2.35	1.55	2.43	177	16	36	110	10	23
AROMATICS	80.3	14.6	21.3	14.26	22.05	16.87	1006	219	236	625	136	147
BENZENE	19.5	4.1	6.8	3.46	6.19	5.36	242	61	74	150	38	46
TOLUENE	23.8	2.8	5.3	4.23	4.16	4.17	298	41	58	185	26	36
C8+AROM	37.0	7.7	9.3	6.57	11.70	7.34	471	118	104	293	73	65
UNKNOWN	33.4	4.0	10.1	0.00	0.00	0.00	427	62	114	265	38	71
INDIVIDUAL COMPONENTS												
METHANE	35.1	6.6	8.9	6.23	9.96	7.02	535	121	120	333	75	74
ETHYLENE	36.4	3.3	6.5	6.11	4.93	5.18	459	52	77	286	32	48
ETHANE	4.6	1.6	2.0	0.82	2.42	1.68	66	27	26	41	17	16
ACETYLENE	10.9	0.3	0.3	1.93	0.48	0.28	134	5	4	84	3	2
C3 + C3=	26.1	2.8	5.7	4.64	4.16	4.54	349	44	68	217	27	42
C=C=C	0.8	0.0	0.0	0.14	0.00	0.00	10	0	0	6	0	0
METHACETYL	1.0	0.0	0.0	0.19	0.00	0.00	13	0	0	8	0	0
ISOBUTANE	5.5	1.0	1.7	0.97	1.45	1.38	75	16	21	47	10	13
B1 + 1B	16.0	1.7	3.5	2.83	2.61	2.80	213	28	42	132	17	26
NC4 +0=1=3	28.1	5.5	9.7	4.99	8.32	7.78	388	91	119	241	57	74
TBUTENE-2	4.5	0.4	0.9	0.80	0.58	0.69	60	6	10	38	4	6
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	4.3	0.3	0.6	0.76	0.39	0.50	57	4	8	36	3	5
B=1=2	0.3	0.0	0.0	0.05	0.00	0.00	4	0	0	2	0	0
3MB1	1.3	0.1	0.1	0.24	0.10	0.09	18	1	1	11	1	1
ISOPENTANE	37.0	5.0	10.1	6.57	7.54	8.02	508	82	123	316	51	76
PENTENE-1	1.8	0.0	0.1	0.32	0.00	0.09	24	0	1	15	0	1
2MBUT-1	3.4	0.1	0.4	0.60	0.19	0.32	45	2	5	28	1	3
NPENTANE	5.5	0.7	1.4	0.98	1.06	1.10	76	12	17	47	7	10
2MB=1=3	0.9	0.1	0.1	0.15	0.19	0.09	11	2	1	7	1	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10202
DATE RUN: 10 07 77
CAR: 1977 FORD LTD 49 STATE VIN: 7H63H157057 DRIVEN: G S MYER FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT-2	4.1	0.1	0.5	0.72	0.19	0.37	54	2	5	34	1	3
CISPENT-2	2.2	0.1	0.2	0.39	0.10	0.18	29	1	3	18	1	2
2MBUT-2	7.6	0.3	1.0	1.35	0.39	0.83	101	4	12	63	3	8
22MBUTANE	0.6	0.1	0.1	0.11	0.10	0.09	9	1	1	5	1	1
CYPENTENE	1.0	0.1	0.2	0.18	0.19	0.14	13	2	2	8	1	1
3MPENTENE	6.3	0.7	1.6	1.12	1.06	1.28	84	11	19	52	7	12
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	15.0	1.5	3.2	2.66	2.32	2.52	205	25	38	127	16	24
2MPENTANE	8.7	0.9	1.8	1.55	1.35	1.42	119	15	22	74	9	13
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
HEXENE-1	2.1	0.1	0.2	0.38	0.10	0.18	29	1	3	18	1	2
N HEXANE	3.9	0.3	0.8	0.69	0.48	0.60	53	5	9	33	3	6
TC6=3,=2	3.7	0.6	0.5	0.66	0.87	0.41	50	9	6	31	6	4
CC6=3	1.2	0.0	0.2	0.22	0.00	0.14	16	0	2	10	0	1
2MPENTENE2	1.8	0.0	0.2	0.32	0.00	0.18	24	0	3	15	0	2
MCYP43M2C5	6.6	0.5	1.3	1.18	0.77	1.05	88	8	16	55	5	10
24MPENTANE	11.3	1.0	2.3	2.01	1.45	1.83	154	16	28	96	10	17
BENZENE	19.5	4.1	6.8	3.46	6.19	5.36	242	61	74	150	38	46
CYHEXANE	1.6	0.2	0.4	0.29	0.29	0.32	22	3	5	13	2	3
2MC6+23MC5	30.0	2.5	5.7	5.32	3.77	4.54	408	41	69	254	25	43
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	6.4	0.5	1.3	1.14	0.77	1.01	88	8	15	55	5	10
224MPENTAN	47.9	4.5	9.8	8.51	6.87	7.79	651	74	118	405	46	73
NHEPTANE	5.2	0.3	0.9	0.92	0.39	0.73	70	4	11	44	3	7
MCYHEXANE	3.5	0.2	0.8	0.63	0.29	0.60	47	3	9	29	2	6
25MHEXANE	6.7	0.3	0.8	1.20	0.39	0.60	91	4	9	57	3	6
24MC6+233M	3.3	0.4	0.6	0.58	0.58	0.50	44	6	8	27	4	5
234MC5	17.1	1.0	2.2	3.04	1.55	1.74	233	17	26	145	10	16
TOLUENE	23.8	2.8	5.3	4.23	4.16	4.17	298	41	58	185	26	36
23MC6+4MC7	5.7	0.4	1.2	1.01	0.68	0.96	77	7	15	48	5	9

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10202
DATE RUN: 10 07 77
CAR: 1977 FORD LTD 49 STATE VIN: 7B63H157057 DRIVER: G S MYEK FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	4.8	0.0	0.8	0.86	0.00	0.64	65	0	10	41	0	6
3MHEPTANE	4.9	0.3	0.6	0.87	0.48	0.50	66	5	8	41	3	5
25DMC6	5.2	0.4	0.9	0.93	0.58	0.73	71	6	11	44	4	7
N OCTANE	1.9	0.1	0.2	0.33	0.19	0.14	25	2	2	16	1	1
223MC6	0.9	0.1	0.0	0.16	0.10	0.00	13	1	0	8	1	0
ETCYHEXANE	1.5	0.1	0.6	0.26	0.19	0.46	19	2	7	12	1	4
ET BENZENE	4.6	0.3	1.0	0.82	0.48	0.78	59	5	11	36	3	7
M+PXYLENE	12.2	1.3	2.4	2.16	1.93	1.88	154	19	27	96	12	16
244MC8	2.6	0.3	0.7	0.46	0.39	0.55	35	4	8	22	3	5
O XYLENE	4.8	0.6	1.0	0.85	0.87	0.83	60	9	12	37	5	7
N NONANE	2.3	0.3	0.6	0.40	0.39	0.50	31	4	6	19	3	5
IPRBENZENE	1.5	0.1	0.5	0.27	0.19	0.37	19	2	5	12	1	3
NPRBENZENE	0.8	0.2	0.2	0.14	0.29	0.18	10	3	3	6	2	2
1M3ETBENZ	3.6	1.0	0.8	0.64	1.45	0.60	46	15	8	28	9	5
135MLBENZ	1.4	0.4	0.3	0.25	0.68	0.28	18	7	4	11	4	2
1M2ETBENZ	2.1	0.6	0.5	0.37	0.87	0.41	27	9	6	17	5	4
124MBENZ	3.7	1.6	1.1	0.65	2.42	0.87	46	24	12	29	15	8
SBUBENZENE	0.5	0.3	0.2	0.08	0.39	0.18	6	4	3	4	2	2
N DECANE	0.2	0.1	0.2	0.04	0.19	0.14	3	2	2	2	1	1
123MBENZ	0.6	0.4	0.3	0.11	0.58	0.28	8	6	4	5	4	2
INDANE	0.2	0.1	0.1	0.04	0.19	0.09	3	2	1	2	1	1
13DEBENZENE	0.1	0.1	0.1	0.02	0.10	0.09	1	1	1	1	1	1
NBUBENZENE	0.5	0.4	0.3	0.08	0.58	0.23	6	6	3	4	4	2
1M3PRBENZ	0.4	0.4	0.3	0.07	0.68	0.28	5	7	4	3	4	2
UNKNOWNS	33.4	4.0	10.1	5.94	6.09	8.02	427	62	114	265	38	71

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10401
DATE RUN: 09 29 77
CAR: 1977 FORD LTD 49 STATE VIN: 7D63H157057 DRIVER: SWARTZLANDER FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 40

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	455.2	41.2	131.0
GC PPMC	375.7	36.9	101.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	26.2	5.0	8.3	6.98	13.44	8.18	426	95	136	265	59	84
SATURATES	173.4	19.4	54.5	46.15	52.57	53.82	2523	333	799	1568	207	497
OLEFINS	80.7	4.4	19.0	21.47	11.93	18.79	1146	74	273	712	46	169
ACETYLENE	8.6	0.0	0.4	2.29	0.00	0.42	113	0	6	70	0	4
NAPTHENES	8.5	0.6	2.1	2.25	1.66	2.12	120	10	31	75	6	19
AROMATICS	60.5	6.7	13.9	16.11	18.13	13.70	808	105	187	502	65	116
BENZENE	14.4	2.5	5.8	3.84	6.80	5.70	190	39	77	118	24	48
TOLUENE	18.6	1.3	4.1	4.95	3.63	4.06	248	21	55	154	13	34
C8+AROM	27.5	2.8	4.0	7.32	7.70	3.94	373	45	55	232	28	34
UNKNOWN	17.9	0.8	3.0	0.00	0.00	0.00	243	13	41	151	8	26
INDIVIDUAL COMPONENTS												
METHANE	26.2	5.0	8.3	6.98	13.44	8.18	426	95	136	265	59	84
ETHYLENE	25.5	1.5	5.3	6.80	4.08	5.21	363	25	76	226	16	47
ETHANE	5.8	1.1	1.7	1.01	3.02	1.64	58	20	25	36	12	16
ACETYLENE	8.6	0.0	0.4	2.29	0.00	0.42	113	0	6	70	0	4
C3 + C3=	17.2	1.2	4.7	4.59	3.32	4.61	245	21	67	152	13	42
C=C=C	0.1	0.0	0.0	0.03	0.00	0.00	2	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	2.9	0.6	2.5	0.78	1.51	2.48	43	10	37	27	6	23
B1 + IB	11.6	0.7	2.6	3.09	1.96	2.55	165	12	37	102	8	23
NC4 +B=1=3	17.2	2.9	11.7	4.57	7.86	11.52	253	50	173	157	31	108
TBUTENE-2	2.5	0.2	0.8	0.65	0.45	0.79	35	3	11	22	2	7
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	2.1	0.1	0.7	0.57	0.15	0.67	31	1	10	19	1	6
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.6	0.0	0.1	0.16	0.00	0.12	9	0	2	5	0	1
ISOPENTANE	23.6	7.9	10.5	6.27	21.45	10.36	345	136	155	214	85	96
PENTENE-1	0.8	0.0	0.1	0.21	0.00	0.12	11	0	2	7	0	1
2MBUT-1	1.8	0.0	0.4	0.49	0.00	0.36	26	0	5	16	0	3
NPENTANE	3.6	0.3	1.5	0.96	0.91	1.45	53	6	22	33	4	13
2MB=1=3	0.2	0.1	0.1	0.05	0.15	0.12	3	1	2	2	1	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10401
DATE RUN: 09 29 77
CAR: 1977 FORD LTD 49 STATE VIN: 7D63M157057 DRIVER: SWARTZLANDER FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	2.1	0.0	0.6	0.56	0.00	0.55	30	0	8	18	0	5
CISPENT-2	1.0	0.0	0.2	0.28	0.00	0.24	15	0	4	9	0	2
2MBUT-2	4.5	0.1	1.1	1.19	0.30	1.09	64	2	16	40	1	10
22MBUTANE	0.6	0.1	0.1	0.16	0.15	0.06	9	1	1	6	1	1
CYPENTENE	0.6	0.1	0.3	0.15	0.30	0.30	8	2	4	5	1	3
3MPENTENE	4.2	0.3	1.1	1.11	0.76	1.09	59	5	16	37	3	10
CYPENTANE	0.0	0.2	0.3	0.00	0.45	0.30	0	3	4	0	2	3
23MBUTANE	11.4	0.7	3.0	3.02	1.81	2.97	165	11	44	103	7	27
2MPENTANE	6.0	0.3	1.7	1.58	0.91	1.64	87	6	24	54	4	15
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
HEXENE-1	1.5	0.0	0.2	0.39	0.00	0.24	21	0	4	13	0	2
N HEXANE	2.5	0.0	0.7	0.65	0.00	0.67	36	0	10	22	0	6
TC6=3,=2	2.5	0.0	0.4	0.65	0.00	0.42	35	0	6	22	0	4
CC6=3	0.7	0.0	0.1	0.18	0.00	0.12	10	0	2	6	0	1
2MPENTENE2	1.2	0.2	0.2	0.31	0.45	0.18	17	3	3	10	2	2
MCYP43M2C5	4.4	0.2	1.1	1.18	0.60	1.09	63	4	16	39	2	10
24MPENTANE	7.5	0.4	1.9	1.99	1.06	1.88	109	7	28	67	4	17
BENZENE	14.4	2.5	5.8	3.84	6.60	5.70	190	39	77	118	24	48
CYHEXANE	1.0	0.1	0.2	0.26	0.15	0.24	14	1	4	9	1	2
2MC6+23MC5	19.8	1.1	4.5	5.28	2.87	4.48	288	18	66	179	11	41
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	4.2	0.2	0.9	1.11	0.60	0.91	61	4	13	38	2	8
224MPENTAN	32.0	2.1	7.5	8.51	5.59	7.39	463	35	109	288	22	68
NHEPTANE	3.3	0.1	0.6	0.88	0.15	0.55	48	1	8	30	1	5
MCYHEXANE	2.3	0.1	0.4	0.60	0.30	0.42	32	2	6	20	1	4
25MHEXANE	3.1	0.1	0.5	0.82	0.30	0.48	44	2	7	28	1	4
24MC6+23DM	3.3	0.2	0.6	0.87	0.45	0.61	47	3	9	29	2	6
234MC5	9.7	0.4	1.7	2.58	1.21	1.70	140	8	25	87	5	16
TOLUENE	18.6	1.3	4.1	4.95	3.63	4.06	248	21	55	154	13	34
23MC6+4MC7	3.8	0.2	0.7	1.01	0.60	0.67	55	4	10	34	2	6

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10401
DATE RUN: 09 29 77
CAR: 1977 FORD LTD 49 STATE VIN: 7H63H157057 DRIVER: SWARTZLANDER FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	3.3	0.2	0.6	0.87	0.60	0.55	47	4	8	29	2	5
3MHEPTANE	3.3	0.2	0.6	0.87	0.60	0.55	47	4	8	29	2	5
255MC6	3.6	0.2	0.6	0.95	0.60	0.61	51	4	9	32	2	6
N OCTANE	1.2	0.0	0.2	0.33	0.00	0.18	18	0	3	11	0	2
223MC6	0.5	0.0	0.1	0.13	0.00	0.06	7	0	1	4	0	1
ETCYHEXANE	0.8	0.1	0.1	0.21	0.15	0.06	11	1	1	7	1	1
ET BENZENE	3.1	0.1	0.4	0.82	0.30	0.36	41	2	5	26	1	3
M+PXYLENE	9.9	0.4	1.4	2.63	1.21	1.39	133	7	19	83	4	12
24MC8	1.8	0.1	0.2	0.49	0.15	0.24	27	1	4	17	1	2
O XYLENE	3.7	0.2	0.6	1.00	0.60	0.55	50	4	7	31	2	5
N NONANE	1.5	0.1	0.2	0.41	0.15	0.18	22	1	3	14	1	2
IPRBENZENE	1.0	0.1	0.1	0.26	0.15	0.12	13	1	2	8	1	1
NPRBENZENE	0.6	0.1	0.1	0.16	0.15	0.06	8	1	1	5	1	1
1M3ETBENZ	2.8	0.3	0.3	0.74	0.91	0.30	37	5	4	23	3	3
135MEBENZ	1.0	0.2	0.1	0.28	0.45	0.12	14	3	2	9	2	1
1M2ETBENZ	1.5	0.2	0.2	0.39	0.60	0.24	20	4	3	12	2	2
124MBENZ	2.5	0.6	0.4	0.65	1.66	0.42	33	10	6	21	6	4
SBUBENZENE	0.3	0.1	0.1	0.08	0.30	0.06	4	2	1	3	1	1
N DECANE	0.1	0.0	0.0	0.03	0.00	0.00	2	0	0	1	0	0
123MBENZ	0.4	0.2	0.1	0.10	0.45	0.06	5	3	1	3	2	1
INDANE	0.1	0.1	0.1	0.03	0.15	0.06	2	1	1	1	1	1
13EBENZENE	0.1	0.0	0.1	0.02	0.00	0.06	1	0	1	1	0	1
NBUBENZENE	0.3	0.1	0.1	0.08	0.30	0.06	4	2	1	3	1	1
1M3PRBENZ	0.3	0.2	0.1	0.08	0.45	0.06	4	3	1	3	2	1
UNKNOWNS	17.9	0.8	3.0	4.75	2.27	2.97	243	13	41	151	8	26

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10402
DATE RUN: 10 10 77
CAR: 1977 FORD LTD 49 STATE VIN: 7D63H157057 DRIVER: SWARTZLANDER FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 40

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	437.4	49.2	122.0
GC PPMC	374.7	57.6	108.1

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	25.5	5.7	9.0	6.81	9.92	8.33	399	95	132	248	59	82
SATURATES	177.3	23.3	52.2	47.32	40.36	48.27	2463	347	686	1543	215	426
OLEFINS	86.7	10.4	23.6	23.15	18.02	21.87	1186	151	303	737	94	189
ACETYLENE	10.7	0.0	0.6	2.85	0.00	0.51	136	0	7	84	0	4
NAPTHENES	9.1	0.8	2.1	2.42	1.37	1.98	124	11	28	77	7	17
AROMATICS	44.4	13.7	15.7	11.86	23.83	14.56	571	188	190	355	117	118
BENZENE	14.0	3.7	7.0	3.73	6.50	6.46	177	51	83	110	31	52
TOLUENE	15.5	2.3	4.2	4.15	3.99	3.91	199	31	51	124	20	32
C8+AROM	14.9	7.7	4.5	3.99	13.34	4.19	195	107	56	121	66	35
UNKNOWN	20.9	3.7	4.8	0.00	0.00	0.00	274	52	59	170	32	37
INDIVIDUAL COMPONENTS												
METHANE	25.5	5.7	9.0	6.81	9.92	8.33	399	95	132	248	59	82
ETHYLENE	24.3	2.6	6.9	6.47	4.56	6.40	332	38	89	206	24	55
ETHANE	3.8	1.4	2.3	1.00	2.51	2.15	55	23	32	34	14	20
ACETYLENE	10.3	0.0	0.5	2.76	0.00	0.45	131	0	6	82	0	4
C3 + C3=	16.7	2.4	6.2	4.46	4.10	5.72	229	34	79	142	21	49
C=C=C	0.3	0.0	0.0	0.08	0.00	0.00	4	0	0	2	0	0
METHACETYL	0.4	0.0	0.1	0.10	0.00	0.06	5	0	1	3	0	0
ISOBUTANE	2.7	0.8	1.8	0.73	1.37	1.64	39	12	24	24	7	15
B1 + IB	11.5	1.6	3.7	3.06	2.74	3.46	157	23	48	97	14	30
NC4 +B=1=3	17.0	4.3	9.9	4.54	7.53	9.18	241	65	132	150	41	82
TBUTENE-2	2.8	0.3	0.9	0.75	0.46	0.79	38	4	11	24	2	7
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	2.4	0.1	0.6	0.65	0.23	0.57	33	2	8	21	1	5
B=1=2	0.1	0.0	0.0	0.02	0.00	0.00	1	0	0	0	0	0
3MB1	0.6	0.0	0.1	0.16	0.00	0.11	8	0	2	5	0	1
ISOPENTANE	26.0	3.6	9.6	6.94	6.27	8.84	366	54	126	227	34	78
PENTENE-1	1.1	0.0	0.1	0.29	0.00	0.11	15	0	2	9	0	1
2MBUT-1	2.3	0.1	0.4	0.61	0.23	0.34	31	2	5	19	1	3
NPENTANE	4.0	0.5	1.3	1.07	0.91	1.19	56	8	17	35	5	11
2MB=1=3	0.4	0.1	0.2	0.11	0.23	0.23	6	2	3	3	1	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10402
DATE RUN: 10 10 77
CAR: 1977 FORD LTD 49 STATE VIN: 7B63H157057 DRIVER: SWARTZLANDER FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	2.9	0.1	0.4	0.77	0.23	0.34	39	2	5	24	1	3
CISPENT-2	1.6	0.0	0.2	0.41	0.00	0.17	21	0	2	13	0	1
2MBUT-2	5.7	0.2	0.8	1.51	0.34	0.74	78	3	10	48	2	6
22MBUTANE	5.1	0.1	0.1	1.37	0.11	0.06	72	1	1	45	1	1
CYPENTENE	1.0	1.4	0.4	0.26	2.39	0.34	13	20	5	8	12	3
3MPENTENE	5.3	0.9	1.5	1.40	1.48	1.36	72	12	19	45	8	12
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	12.2	1.5	3.1	3.25	2.62	2.89	171	23	41	106	14	26
2MPENTANE	7.2	0.9	1.8	1.91	1.48	1.70	100	13	24	62	8	15
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
HEXENE-1	1.7	0.2	0.3	0.45	0.34	0.28	23	3	4	14	2	2
N HEXANE	3.2	0.4	0.9	0.85	0.68	0.85	44	6	12	28	4	8
TC6=3,=2	3.6	0.2	0.4	0.96	0.34	0.40	49	3	6	30	2	3
CC6=3	1.1	0.1	0.3	0.29	0.23	0.28	15	2	4	9	1	2
2MPENTENE2	1.7	0.1	0.2	0.45	0.11	0.23	23	1	3	14	1	2
MCYP43M2C5	5.3	0.4	1.2	1.40	0.68	1.08	72	6	15	45	4	9
24MPENTANE	8.5	0.7	1.9	2.26	1.25	1.76	118	11	25	74	7	15
BENZENE	14.0	3.7	7.0	3.73	6.50	6.46	177	51	83	110	31	52
CYHEXANE	1.3	0.1	0.4	0.33	0.11	0.34	17	1	5	11	1	3
2MC6+23MC5	21.1	1.8	4.5	5.63	3.08	4.19	294	26	59	183	16	37
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	4.3	0.3	0.9	1.15	0.57	0.85	60	5	12	37	3	7
224MPENTAN	32.1	3.3	7.6	8.56	5.82	7.03	447	50	99	278	31	62
NHEPTANE	3.3	0.5	0.6	0.88	0.80	0.51	46	7	7	28	4	4
MCYHEXANE	2.1	0.2	0.5	0.56	0.34	0.45	29	3	6	18	2	4
25MHEXANE	0.6	0.1	0.1	0.16	0.11	0.11	8	1	2	5	1	1
24MC6+233M	4.8	0.5	1.1	1.29	0.91	1.02	67	8	14	42	5	9
234MC5	8.0	0.8	1.6	2.14	1.37	1.47	111	12	21	69	7	13
TOLUENE	15.5	2.3	4.2	4.15	3.99	3.91	199	31	51	124	20	32
23MC6+4MC7	2.7	0.3	0.6	0.72	0.46	0.57	37	4	8	23	2	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10402
DATE RUN: 10 10 77
CAR: 1977 FORD LTD 49 STATE VIN: 7B63H157057 DRIVER: SWARTZLANDER FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.3	0.3	0.5	0.62	0.46	0.45	32	4	6	20	2	4
3MHEPTANE	2.4	0.2	0.5	0.65	0.34	0.45	34	3	6	21	2	4
255MC6	2.6	0.3	0.6	0.69	0.57	0.57	36	5	8	22	3	5
N OCTANE	0.9	0.1	0.2	0.24	0.23	0.17	12	2	2	8	1	1
223MC6	0.7	0.1	0.1	0.19	0.11	0.11	10	1	2	6	1	1
ETCYHEXANE	0.5	0.1	0.1	0.13	0.23	0.11	7	2	2	4	1	1
ET BENZENE	0.1	0.3	0.4	0.02	0.57	0.34	1	5	4	0	3	3
M+PXYLENE	7.1	1.4	1.4	1.90	2.51	1.30	92	20	17	57	12	11
244MC8	0.9	0.2	0.2	0.24	0.34	0.23	12	3	3	8	2	2
O XYLENE	2.3	0.7	0.6	0.62	1.14	0.51	30	9	7	19	6	4
N NONANE	0.9	0.3	0.2	0.24	0.46	0.23	12	4	3	8	2	2
IPRBENZENE	0.7	0.3	0.2	0.18	0.46	0.17	9	4	2	5	2	1
NPRBENZENE	0.4	0.3	0.1	0.11	0.46	0.06	5	4	1	3	2	0
1M3ETBENZ	1.4	0.9	0.4	0.37	1.60	0.40	18	13	5	11	8	3
135MEBENZ	0.4	0.3	0.2	0.11	0.57	0.17	5	5	2	3	3	1
1M2ETBENZ	0.7	0.5	0.3	0.19	0.80	0.28	9	6	4	6	4	2
124MBENZ	1.0	0.9	0.5	0.27	1.60	0.45	13	13	6	8	8	4
SBUBENZENE	0.5	0.7	0.1	0.13	1.25	0.11	6	10	2	4	6	1
N DECANE	0.0	0.0	0.1	0.00	0.00	0.06	0	0	1	0	0	0
123MBENZ	0.2	0.7	0.3	0.05	1.14	0.28	2	9	4	1	6	2
INDANE	0.1	0.1	0.1	0.02	0.23	0.06	1	2	1	0	1	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.2	0.1	0.02	0.34	0.06	1	3	1	0	2	0
1M3PRBENZ	0.1	0.4	0.0	0.02	0.68	0.00	1	5	0	0	3	0
UNKNOWNS	20.9	3.7	4.8	5.58	6.50	4.48	274	52	59	170	32	37

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10601
DATE RUN: 09 07 77
CAR: 1977 FORD LTD 49 STATE VIN: 7U65H157057 DRIVER: G S HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 60

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	271.3	47.1	148.0
GC PPMC	213.8	38.0	123.0

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	16.1	5.5	9.5	7.51	14.40	7.72	265	127	149	165	79	92
SATURATES	81.6	14.8	60.5	38.15	38.92	49.20	1207	307	848	750	191	527
OLEFINS	59.0	6.3	26.4	27.59	16.61	21.44	852	128	361	530	80	224
ACETYLENE	1.6	0.0	0.6	0.75	0.00	0.45	22	0	7	13	0	4
NAPTHENES	4.0	0.5	2.4	1.86	1.42	1.95	57	11	33	36	7	20
AROMATICS	37.0	7.8	19.4	17.29	20.41	15.78	502	148	250	312	92	155
BENZENE	11.8	3.3	7.6	5.51	8.70	6.16	158	62	96	98	39	60
TOLUENE	14.5	2.3	7.0	6.76	6.01	5.71	196	44	90	122	27	56
C8+AROM	10.7	2.2	4.8	5.02	5.70	3.91	148	42	63	92	26	39
UNKNOWN	14.6	3.1	4.3	0.00	0.00	0.00	202	61	56	126	38	35
INDIVIDUAL COMPONENTS												
METHANE	16.1	5.5	9.5	7.51	14.40	7.72	265	127	149	165	79	92
ETHYLENE	17.9	1.9	7.7	8.38	5.06	6.26	259	39	105	161	24	66
ETHANE	3.0	1.1	2.1	1.42	2.85	1.70	47	24	31	29	15	19
ACETYLENE	1.6	0.0	0.6	0.75	0.00	0.45	22	0	7	13	0	4
C3 + C3=	15.5	1.9	7.3	7.25	5.06	5.91	224	39	100	139	24	62
C=C=C	0.2	0.0	0.0	0.12	0.00	0.00	3	0	0	2	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.3	0.4	2.0	0.61	0.95	1.60	20	6	28	12	5	17
B1 + IB	9.9	1.1	3.9	4.61	3.01	3.21	143	23	54	89	14	34
NC4 +B=1=3	6.5	1.7	7.9	5.05	4.43	6.41	98	35	112	61	22	70
TBUTENE-2	1.7	0.2	0.8	0.81	0.47	0.65	25	4	11	16	2	7
22MPRUPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.6	0.1	0.7	0.73	0.32	0.60	22	2	10	14	2	6
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.4	0.0	0.1	0.20	0.00	0.10	6	0	2	4	0	1
ISOPENTANE	10.2	2.2	10.8	4.76	5.85	8.82	151	46	153	94	29	95
PENTENE-1	0.3	0.0	0.1	0.15	0.00	0.10	4	0	2	3	0	1
2MBUT-1	0.9	0.1	0.3	0.44	0.16	0.25	13	1	4	8	1	3
NPENTANE	2.0	0.4	2.1	0.93	1.11	1.70	30	9	30	18	5	18
2MB=1=3	0.6	0.1	0.0	0.29	0.16	0.00	9	1	0	5	1	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10601
DATE RUN: 09 07 77
CAR: 1977 FORD LTD 49 STATE VIN: 7B63H157057 DRIVER: G S HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
1PENT=2	1.1	0.0	0.5	0.52	0.00	0.40	16	0	7	10	0	4
C1SPENT-2	0.5	0.0	0.2	0.23	0.00	0.15	7	0	3	4	0	2
2MBUT-2	2.6	0.2	1.2	1.22	0.47	1.00	38	4	17	23	2	10
22MBUTANE	2.9	0.4	1.8	1.36	0.95	1.45	43	7	25	27	5	16
CYPENTENE	0.2	0.1	0.2	0.12	0.16	0.20	3	1	3	2	1	2
3MPENTENE	2.5	0.5	1.8	1.19	1.42	1.50	37	11	25	23	7	16
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	5.9	1.0	4.2	2.76	2.53	3.41	87	20	59	54	12	37
2MPENTANE	2.9	0.5	2.2	1.33	1.42	1.80	42	11	31	26	7	19
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
HEXENE-1	0.8	0.1	0.4	0.38	0.16	0.35	12	1	6	7	1	4
N HEXANE	1.7	0.2	1.1	0.78	0.63	0.90	25	5	16	15	3	10
TC6=3,=2	1.2	0.1	0.6	0.55	0.16	0.45	17	1	8	11	1	5
CC6=3	0.4	0.0	0.1	0.17	0.00	0.10	5	0	2	3	0	1
2MPENTENE2	0.5	0.0	0.2	0.23	0.00	0.20	7	0	3	4	0	2
MCYP4JM2C5	2.1	0.3	1.4	0.99	0.79	1.10	30	6	19	19	4	12
24MPENTANE	3.5	0.5	2.2	1.62	1.27	1.75	51	10	30	32	6	19
BENZENE	11.8	3.3	7.6	5.51	8.70	6.16	158	62	96	98	39	60
CYHEXANE	0.6	0.1	0.4	0.29	0.16	0.30	9	1	5	6	1	3
2MC6+23MC5	8.1	1.1	4.4	3.77	3.01	3.61	119	24	62	74	15	39
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.4	0.3	1.3	1.10	0.79	1.05	35	6	18	22	4	11
224MPENTAN	15.3	2.5	8.4	7.17	6.65	6.86	225	52	118	140	32	73
NHEPTANE	1.8	0.2	0.7	0.84	0.47	0.60	27	4	10	16	2	6
MCYHEXANE	0.9	0.1	0.4	0.41	0.32	0.35	13	2	6	8	2	4
25MHEXANE	2.0	0.2	1.0	0.96	0.63	0.85	30	5	15	19	3	9
24MC6+23JM	1.9	0.2	0.9	0.87	0.63	0.75	27	5	13	17	3	8
234MC5	1.3	0.7	2.6	0.61	1.74	2.15	19	14	37	12	8	23
TOLUENE	14.5	2.3	7.0	6.76	6.01	5.71	196	44	90	122	27	56
23MC6+4MC7	1.9	0.2	0.9	0.87	0.63	0.75	27	5	13	17	3	8

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10601
DATE RUN: 09 07 77
CAR: 1977 FORD LTD 49 STATE VIN: 7B63H157057 DRIVEN: G S MYER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.7	0.2	0.9	0.78	0.63	0.70	25	5	12	15	3	7
3MHEPTANE	1.5	0.2	0.8	0.70	0.47	0.65	22	4	11	14	2	7
255MC6	2.1	0.2	1.0	0.99	0.63	0.85	31	5	15	19	3	9
N OCTANE	0.6	0.1	0.3	0.29	0.16	0.25	9	1	4	6	1	3
223MC6	0.2	0.0	0.1	0.12	0.00	0.10	4	0	2	2	0	1
ETCYHEXANE	0.4	0.1	0.2	0.17	0.16	0.20	5	1	3	3	1	2
ET BENZENE	1.8	0.1	0.7	0.84	0.32	0.55	25	2	9	15	1	5
M+PXYLENE	5.0	0.6	2.2	2.32	1.58	1.80	68	12	29	42	7	18
2+4MC8	0.6	0.1	0.4	0.29	0.32	0.30	9	2	5	6	2	3
O XYLENE	1.7	0.2	0.7	0.78	0.63	0.60	23	5	10	14	3	6
N NONANE	0.4	0.1	0.2	0.17	0.16	0.15	5	1	3	3	1	2
IPRBENZENE	0.2	0.1	0.1	0.12	0.16	0.10	3	1	2	2	1	1
NPRBENZENE	0.1	0.0	0.0	0.06	0.00	0.00	2	0	0	1	0	0
1M3ETBENZ	0.7	0.2	0.4	0.35	0.47	0.30	10	3	5	6	2	3
135MEBENZ	0.2	0.1	0.2	0.12	0.32	0.15	3	2	2	2	1	1
1M2ETBENZ	0.3	0.1	0.2	0.15	0.16	0.20	4	1	3	3	1	2
124MBENZ	0.6	0.3	0.2	0.29	0.79	0.20	9	6	3	5	4	2
SBUBENZENE	0.0	0.1	0.0	0.00	0.16	0.00	0	1	0	0	1	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.0	0.2	0.0	0.00	0.63	0.00	0	5	0	0	3	0
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1JEBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.0	0.1	0.0	0.00	0.32	0.00	0	2	0	0	1	0
1M3PRBENZ	0.0	0.1	0.0	0.00	0.16	0.00	0	1	0	0	1	0
UNKNOWNS	14.6	3.1	4.3	6.85	8.23	3.46	202	61	56	126	38	35

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10602
DATE RUN: 09 28 77
CAR: 1977 FORD LTD 49 STATE VIN: 7B63H157057 DRIVEN: SWARTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 60

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	326.9	43.0	138.4
GC PPMC	303.7	38.0	122.2

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	21.1	5.4	9.2	6.95	14.12	7.54	305	117	135	190	72	84
SATURATES	123.0	14.2	54.7	40.49	37.34	44.73	1591	276	715	989	172	444
OLEFINS	74.9	5.7	26.1	24.66	15.10	21.32	946	109	333	588	68	207
ACETYLENE	3.2	0.0	0.4	1.06	0.00	0.33	38	0	5	24	0	3
NAPTHENES	6.3	0.7	2.5	2.06	1.79	2.02	79	13	32	49	8	20
AROMATICS	61.6	10.9	25.2	20.29	28.57	20.61	731	194	302	455	120	188
BENZENE	16.1	3.5	7.9	5.29	9.09	6.45	188	61	93	117	38	58
TOLUENE	22.3	2.4	8.7	7.33	6.33	7.11	264	43	104	164	27	65
C8+AROM	23.3	5.0	8.6	7.67	13.15	7.05	281	91	105	175	56	65
UNKNOWN	13.6	1.2	4.2	0.00	0.00	0.00	165	21	51	102	13	32
INDIVIDUAL COMPONENTS												
METHANE	21.1	5.4	9.2	6.95	14.12	7.54	305	117	135	190	72	84
ETHYLENE	22.4	2.0	7.3	7.39	5.36	5.96	284	39	93	176	24	58
ETHANE	3.5	1.1	2.1	1.16	2.92	1.75	48	23	29	30	14	18
ACETYLENE	3.2	0.0	0.4	1.06	0.00	0.33	38	0	5	24	0	3
C3 + C3=	19.3	1.7	6.5	6.37	4.55	5.36	244	33	84	152	20	52
C=C=C	0.3	0.0	0.0	0.10	0.00	0.00	4	0	0	2	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.9	0.4	1.9	0.62	1.14	1.53	25	8	25	15	5	15
B1 + 1B	12.2	1.0	3.7	4.03	2.60	3.06	155	19	48	96	12	30
NC4 +B=1=3	8.9	1.8	7.7	2.94	4.71	6.29	117	35	102	73	22	63
TBUTENE-2	2.4	0.2	0.9	0.78	0.49	0.71	30	4	11	19	2	7
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	2.0	0.1	0.8	0.66	0.32	0.66	25	2	10	16	1	6
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.5	0.0	0.2	0.18	0.00	0.16	7	0	3	4	0	2
ISOPENTANE	13.0	2.0	9.9	4.27	5.19	8.09	168	39	130	105	24	81
PENTENE-1	0.5	0.0	0.1	0.16	0.00	0.11	6	0	2	4	0	1
2MBUT-1	1.4	0.0	0.4	0.46	0.00	0.33	18	0	5	11	0	3
NPENTANE	2.5	0.4	1.8	0.82	1.14	1.48	32	8	24	20	5	15
2MB=1=3	0.8	0.1	0.1	0.26	0.16	0.11	10	1	2	6	1	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10602
DATE RUN: 09 28 77
CAR: 1977 FORD LTD 49 STATE VIN: 7U63H157057 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT-2	1.4	0.1	0.6	0.46	0.16	0.49	18	1	8	11	1	5
CISPENT-2	0.7	0.0	0.3	0.22	0.00	0.22	8	0	3	5	0	2
2MBUT-2	3.2	0.1	1.3	1.04	0.32	1.09	40	2	17	25	1	11
22MBUTANE	0.7	0.1	0.1	0.22	0.16	0.11	9	1	2	5	1	1
CYPENTENE	0.7	0.1	0.3	0.22	0.32	0.22	8	2	3	5	1	2
3MPENTENE	3.6	0.3	1.9	1.18	0.81	1.53	45	6	24	28	4	15
CYPENTANE	0.0	0.2	0.0	0.00	0.49	0.00	0	4	0	0	2	0
23MBUTANE	6.6	0.7	4.0	2.16	1.95	3.28	85	14	52	53	9	33
2MPENTANE	0.4	0.4	2.1	0.13	0.97	1.69	5	7	27	3	4	17
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
HEXENE-1	0.8	0.0	0.3	0.26	0.00	0.27	10	0	4	6	0	3
N HEXANE	2.1	0.2	1.0	0.70	0.49	0.82	26	4	13	17	2	8
TC6=3,=2	1.5	0.0	0.8	0.48	0.00	0.66	18	0	10	11	0	6
CC6=3	0.5	0.0	0.2	0.16	0.00	0.16	6	0	3	4	0	2
2MPENTENE2	0.7	0.0	0.3	0.24	0.00	0.22	9	0	3	6	0	2
MCYP43M2C5	3.0	0.2	1.3	0.98	0.65	1.09	38	5	17	23	3	11
24MPENTANE	5.2	0.5	2.3	1.70	1.30	1.86	67	10	30	41	6	18
BENZENE	16.1	3.5	7.9	5.29	9.09	6.45	188	61	93	117	38	58
CYHEXANE	0.9	0.1	0.4	0.28	0.16	0.33	11	1	5	7	1	3
2MC6+23MC5	12.3	1.0	5.1	4.07	2.76	4.21	159	20	67	99	13	42
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.7	0.3	1.5	1.20	0.81	1.20	47	6	19	29	4	12
224MPENTAN	24.8	2.4	3.3	8.17	6.33	2.68	319	47	43	198	29	26
MHEPTANE	3.0	0.2	1.1	0.98	0.49	0.93	38	4	15	24	2	9
MCYHEXANE	1.4	0.1	0.5	0.46	0.32	0.44	18	2	7	11	1	4
25MHEXANE	3.5	0.2	1.2	1.14	0.65	0.98	45	5	16	28	3	10
24MC6+233M	3.1	0.2	1.1	1.02	0.65	0.93	40	5	15	25	3	9
234MC5	9.9	0.7	2.8	3.27	1.79	2.30	128	13	36	79	8	23
TOLUENE	22.3	2.4	8.7	7.33	6.33	7.11	264	43	104	164	27	65
23MC6+4MC7	3.5	0.3	1.1	1.16	0.81	0.93	45	6	15	28	4	9

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10602
DATE RUN: 09 28 77
CAR: 1977 FORD LTD 49 STATE VIN: 7B63H157057 DRIVEN: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	3.2	0.2	1.0	1.04	0.65	0.82	41	5	13	25	3	8
3MHEPTANE	2.9	0.2	0.9	0.94	0.49	0.71	37	4	11	23	2	7
255MC6	3.9	0.3	1.3	1.28	0.81	1.04	50	6	16	31	4	10
N OCTANE	1.3	0.1	0.4	0.44	0.16	0.33	17	1	5	11	1	3
223MC6	0.7	0.1	0.2	0.22	0.16	0.16	9	1	3	5	1	2
ETCYHEXANE	1.0	0.1	0.2	0.34	0.16	0.16	13	1	3	8	1	2
ET BENZENE	3.8	0.3	0.7	1.26	0.81	0.60	46	6	9	28	3	6
M+PXYLENE	8.9	1.1	3.1	2.92	2.92	2.51	106	20	37	66	12	23
2+4MC8	1.5	0.2	0.5	0.50	0.49	0.38	20	4	6	12	2	4
O XYLENE	3.3	0.5	1.1	1.08	1.30	0.93	39	9	14	24	6	9
N NONANE	0.9	0.1	0.3	0.30	0.32	0.22	12	2	3	7	1	2
IPRBENZENE	0.7	0.1	0.2	0.24	0.16	0.16	9	1	2	5	1	2
NPRBENZENE	0.5	0.1	0.1	0.16	0.32	0.11	6	2	2	4	1	1
1M3ETBENZ	1.9	0.7	0.7	0.62	1.79	0.60	23	12	9	14	8	6
135MEBENZ	0.7	0.3	0.3	0.24	0.81	0.27	9	6	4	5	3	3
1M2ETBENZ	0.8	0.2	0.4	0.26	0.65	0.33	10	4	5	6	3	3
124MBENZ	1.8	1.0	1.0	0.58	2.60	0.82	21	18	12	13	11	8
SBUBENZENE	0.2	0.1	0.1	0.06	0.32	0.11	2	2	2	1	1	1
N DECANE	0.1	0.0	0.0	0.02	0.00	0.00	1	0	0	0	0	0
123MBENZ	0.2	0.2	0.2	0.08	0.49	0.16	3	3	2	2	2	2
INDANE	0.1	0.1	0.1	0.02	0.16	0.05	1	1	1	0	1	0
13EBENZENE	0.1	0.1	0.1	0.02	0.16	0.05	1	1	1	0	1	1
NBUBENZENE	0.2	0.1	0.2	0.06	0.32	0.16	2	2	2	1	1	2
1M3PRBENZ	0.2	0.1	0.2	0.06	0.32	0.16	2	2	2	1	1	2
UNKNOWNS	13.6	1.2	4.2	4.49	3.08	3.44	165	21	51	102	13	32

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10701
DATE RUN: 09 08 77
CAR: 1977 FORD LTD 49 STATE VIN: 7B63H157057 DRIVER: G S HYEK FUEL: SUNNER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 70

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	295.1	47.6	177.0
GC PPMC	223.0	32.0	110.4

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	16.7	4.4	7.6	7.47	13.72	6.91	286	124	158	178	77	98
SATURATES	86.6	12.3	56.1	38.82	38.35	50.84	1332	310	1041	828	193	647
OLEFINS	60.0	4.7	23.4	26.90	14.66	21.20	901	116	424	560	72	264
ACETYLENE	1.9	0.0	0.3	0.86	0.00	0.32	27	0	6	17	0	4
NAPTHENES	4.3	0.6	2.4	1.94	1.68	2.16	65	15	43	40	9	27
AROMATICS	43.9	8.2	17.4	19.67	25.75	15.72	619	191	295	385	119	184
BENZENE	12.8	3.4	6.3	5.75	10.53	5.70	179	77	106	111	48	66
TOLUENE	16.1	2.2	6.5	7.20	6.77	5.85	227	50	110	141	31	68
C8+AROM	15.0	2.7	4.6	6.72	8.46	4.17	215	64	80	133	40	49
UNKNOWN	9.7	1.8	3.1	0.00	0.00	0.00	139	43	55	87	27	34
INDIVIDUAL COMPONENTS												
METHANE	16.7	4.4	7.6	7.47	13.72	6.91	286	124	158	178	77	98
ETHYLENE	18.4	1.7	6.2	8.25	5.26	5.59	277	42	112	172	26	70
ETHANE	3.1	1.0	1.5	1.38	3.01	1.37	49	25	29	31	16	18
ACETYLENE	1.9	0.0	0.3	0.86	0.00	0.32	27	0	6	17	0	4
C3 + C3=	16.4	1.5	5.7	7.36	4.70	5.17	247	37	103	153	23	64
C=C=C	0.2	0.0	0.0	0.11	0.00	0.00	3	0	0	2	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.1	0.2	1.9	0.51	0.75	1.74	18	6	36	11	4	22
B1 + 1B	10.6	1.0	3.6	4.75	3.01	3.22	159	24	64	99	15	40
NC4 +B=1=3	6.1	1.2	8.6	2.72	3.76	7.75	95	31	161	59	19	100
TBUTENE-2	1.7	0.8	0.8	0.78	0.00	0.74	26	0	15	16	0	9
22MPRUPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.6	0.0	0.8	0.73	0.00	0.69	24	0	14	15	0	9
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.4	0.0	0.2	0.16	0.00	0.16	5	0	3	3	0	2
ISOPENTANE	9.7	1.6	11.6	4.37	4.89	10.50	151	40	216	94	25	134
PENTENE-1	0.3	0.0	0.1	0.13	0.00	0.11	5	0	2	3	0	1
2MBUT-1	0.9	0.0	0.3	0.40	0.00	0.32	14	0	6	8	0	4
NPENTANE	2.0	0.4	2.1	0.89	1.13	1.90	31	9	39	19	6	24
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10701
DATE RUN: 09 08 77
CAR: 1977 FORD LTD 49 STATE VIN: 7B63H157057 DRIVER: G S HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT-2	1.0	0.0	0.7	0.46	0.00	0.63	15	0	13	10	0	8
CISPENT-2	0.4	0.0	0.2	0.19	0.00	0.21	6	0	4	4	0	3
2MBUT-2	2.5	0.1	1.6	1.13	0.38	1.42	38	3	28	24	2	18
22MBUTANE	1.1	0.1	0.2	0.49	0.19	0.16	17	2	3	10	1	2
CYPENTENE	0.3	0.0	0.2	0.13	0.00	0.21	4	0	4	3	0	3
3MPENTENE	2.4	0.4	1.8	1.08	1.13	1.64	36	9	33	22	6	20
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	6.1	0.8	3.9	2.75	2.63	3.53	94	21	72	59	13	45
2MPENTANE	2.9	0.4	2.0	1.32	1.32	1.79	45	11	37	28	7	23
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
HEXENE-1	0.7	0.0	0.3	0.30	0.00	0.26	10	0	5	6	0	3
N HEXANE	1.6	0.3	1.0	0.70	0.94	0.95	24	8	19	15	5	12
TC6=3,=2	1.1	0.1	0.5	0.51	0.19	0.47	17	1	9	11	1	6
CC6=3	0.4	0.0	0.2	0.16	0.00	0.16	5	0	3	3	0	2
2MPENTENE2	0.5	0.0	0.2	0.24	0.00	0.21	8	0	4	5	0	3
MCYP43M2C5	2.2	0.3	1.3	1.00	0.94	1.16	33	7	23	21	5	14
24MPENTANE	3.7	0.4	1.9	1.65	1.32	1.74	56	11	36	35	7	22
BENZENE	12.8	3.4	6.3	5.75	10.53	5.70	179	77	106	111	48	66
CYHEXANE	0.7	0.1	0.5	0.30	0.38	0.42	10	3	8	6	2	5
2MC6+23MC5	8.5	1.0	4.1	3.80	3.20	3.69	130	26	75	81	16	47
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.5	0.3	1.2	1.11	0.94	1.05	38	8	22	24	5	13
224MPENTAN	16.4	2.2	7.3	7.34	6.77	6.65	250	54	135	156	34	84
NHEPTANE	1.9	0.2	0.8	0.86	0.56	0.69	30	5	14	18	3	9
MCYHEXANE	1.0	0.1	0.5	0.43	0.38	0.42	14	3	8	9	2	5
25MHEXANE	2.2	0.2	1.8	1.00	0.75	1.64	34	6	33	21	4	21
24MC6+233M	2.0	0.2	0.6	0.89	0.56	0.53	30	5	11	19	3	7
234MC5	5.5	0.6	1.6	2.45	1.88	1.48	84	15	30	52	9	19
TOLUENE	16.1	2.2	6.5	7.20	6.77	5.85	227	50	110	141	31	68
23MC6+4MC7	2.0	0.2	0.8	0.89	0.75	0.74	30	6	15	19	4	9

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10701
DATE RUN: 09 08 77
CAR: 1977 FORD LTD 49 STATE VIN: 7H63H157057 DRIVER: G S HYEK FUEL: SUNNER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	1.8	0.2	0.8	0.81	0.75	0.69	28	6	14	17	4	9
3MHEPTANE	1.6	0.2	0.7	0.73	0.56	0.63	25	5	13	15	3	8
25MHC6	2.3	0.3	0.9	1.05	0.94	0.84	36	8	17	22	5	11
N OCTANE	0.7	0.1	0.3	0.32	0.19	0.26	11	2	5	7	1	3
223MHC6	0.4	0.0	0.1	0.16	0.00	0.11	6	0	2	3	0	1
ETCYHEXANE	0.5	0.1	0.2	0.22	0.19	0.16	7	1	3	4	1	2
ET BENZENE	2.4	0.1	0.5	1.08	0.38	0.47	34	3	9	21	2	6
M+PXYLENE	6.1	0.7	2.0	2.75	2.07	1.79	87	15	34	54	10	21
2+4MHC6	0.8	0.1	0.3	0.38	0.38	0.26	13	3	5	8	2	3
O XYLENE	2.2	0.3	0.7	1.00	0.94	0.63	32	7	12	20	4	7
N NONANE	0.5	0.1	0.2	0.24	0.19	0.16	8	2	3	5	1	2
IPRBENZENE	0.4	0.1	0.1	0.19	0.19	0.11	6	1	2	4	1	1
NPRBENZENE	0.2	0.0	0.1	0.11	0.00	0.05	3	0	1	2	0	1
1M3ETBENZ	1.3	0.3	0.3	0.59	0.94	0.32	19	7	6	12	4	4
135MEBENZ	0.5	0.2	0.2	0.24	0.56	0.16	8	4	3	5	3	2
1M2ETBENZ	0.5	0.1	0.2	0.22	0.38	0.16	7	3	3	4	2	2
124MBENZ	1.2	0.5	0.3	0.54	1.50	0.32	17	11	6	11	7	4
SBUBENZENE	0.0	0.1	0.0	0.00	0.19	0.00	0	1	0	0	1	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.0	0.1	0.1	0.00	0.38	0.05	0	3	1	0	2	1
INDANE	0.0	0.1	0.0	0.00	0.19	0.00	0	1	0	0	1	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.0	0.1	0.1	0.00	0.19	0.05	0	1	1	0	1	1
1M3PRBENZ	0.0	0.2	0.1	0.00	0.56	0.05	0	4	1	0	3	1
UNKNOWNS	9.7	1.8	3.1	4.34	5.64	2.85	139	43	55	87	27	34

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10702
DATE RUN: 09 27 77
CAR: 1977 FORD LTD 49 STATE VIN: 7H63H157057 DRIVER: SWARTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 70

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	322.3	57.7	155.3
GC PPMC	294.1	52.5	146.5

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	19.9	7.3	12.5	6.78	13.89	8.51	281	154	172	175	96	107
SATURATES	120.8	18.9	65.1	41.07	36.05	44.44	1526	358	804	948	222	500
OLEFINS	70.9	9.6	32.6	24.11	18.27	22.27	875	177	394	544	110	245
ACETYLENE	4.0	0.1	1.0	1.36	0.12	0.65	46	1	11	29	1	7
NAPTHENES	6.8	1.0	2.8	2.32	1.83	1.91	84	18	34	52	11	21
AROMATICS	60.0	14.3	28.7	20.41	27.28	19.57	695	248	325	432	154	202
BENZENE	16.4	5.4	10.4	5.58	10.35	7.07	188	93	116	117	58	72
TOLUENE	22.4	3.8	10.1	7.61	7.19	6.93	259	65	115	161	41	71
C8+AROM	21.2	5.1	8.2	7.22	9.74	5.58	250	90	94	155	56	58
UNKNOWN	11.6	1.3	3.9	0.00	0.00	0.00	137	24	45	85	15	28
INDIVIDUAL COMPONENTS												
METHANE	19.9	7.3	12.5	6.78	13.89	8.51	281	154	172	175	96	107
ETHYLENE	20.5	3.3	9.7	6.97	6.33	6.65	253	61	118	157	38	73
ETHANE	3.2	1.5	2.3	1.10	2.80	1.58	43	29	30	26	18	19
ACETYLENE	4.0	0.1	1.0	1.36	0.12	0.65	46	1	11	29	1	7
C3 + C3=	18.7	2.9	8.5	6.37	5.48	5.81	231	53	103	144	33	64
C=C=C	0.2	0.0	0.0	0.08	0.00	0.00	3	0	0	2	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.3	0.4	2.0	0.45	0.73	1.35	17	7	25	11	5	15
B1 + 1B	12.0	1.7	5.0	4.09	3.17	3.44	149	31	61	92	19	38
NC4 +B=1=3	7.8	1.9	7.8	2.65	3.65	5.35	99	37	98	62	23	61
TBUTENE-2	2.1	0.3	1.0	0.72	0.61	0.70	26	6	12	16	4	8
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.8	0.1	0.9	0.60	0.24	0.60	22	2	11	14	1	7
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.5	0.1	0.2	0.17	0.12	0.14	6	1	2	4	1	2
ISOPENTANE	12.3	2.4	10.1	4.20	4.63	6.93	157	46	126	97	29	78
PENTENE-1	0.4	0.0	0.1	0.14	0.00	0.09	5	0	2	3	0	1
2MBUT-1	1.3	0.1	0.5	0.43	0.12	0.33	16	1	6	10	1	4
NPENTANE	2.5	0.4	2.0	0.85	0.85	1.35	32	9	25	20	5	15
2MB=1=3	0.9	0.1	0.3	0.31	0.24	0.19	11	2	3	7	1	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10702
DATE RUN: 09 27 77
CAR: 1977 FORD LTD 49 STATE VIN: 7U63H157057 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
TPENT=2	1.4	0.1	0.7	0.48	0.24	0.46	17	2	8	11	1	5
CISPENT-2	0.6	0.0	0.3	0.21	0.00	0.19	8	0	3	5	0	2
2MBUT-2	3.2	0.3	1.5	1.08	0.49	1.02	39	5	18	24	3	11
22MBUTANE	0.7	0.1	0.2	0.25	0.12	0.14	9	1	3	6	1	2
CYPENTENE	0.3	0.1	0.2	0.10	0.12	0.14	4	1	2	2	1	1
3MPENTENE	3.3	0.4	1.9	1.12	0.85	1.30	41	8	23	25	5	14
CYPENTANE	0.9	0.2	0.0	0.31	0.37	0.00	11	4	0	7	2	0
23MBUTANE	6.9	1.0	4.1	2.34	1.95	2.79	87	19	50	54	12	31
2MPENTANE	4.0	0.6	2.2	1.34	1.10	1.49	50	11	27	31	7	17
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
HEXENE-1	0.9	0.1	0.5	0.29	0.12	0.33	11	1	6	7	1	4
N HEXANE	2.2	0.3	1.2	0.74	0.61	0.84	28	6	15	17	4	9
TC6=3=2	1.6	0.0	0.7	0.54	0.00	0.46	20	0	8	12	0	5
CC6=3	0.5	0.0	0.3	0.19	0.00	0.19	7	0	3	4	0	2
2MPENTENE2	0.7	0.1	0.3	0.23	0.12	0.23	8	1	4	5	1	3
MCYP43M2C5	3.0	0.4	1.5	1.01	0.73	1.02	37	7	18	23	4	11
24MPENTANE	5.2	0.7	2.5	1.78	1.34	1.67	66	13	30	41	8	19
BENZENE	16.4	5.4	10.4	5.58	10.35	7.07	188	93	116	117	58	72
CYHEXANE	0.9	0.1	0.5	0.29	0.24	0.37	11	2	7	7	1	4
2MC6+23MC5	12.4	1.7	5.4	4.22	3.17	3.72	156	31	67	97	19	42
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.6	0.4	1.6	1.24	0.85	1.12	46	8	20	29	5	13
224MPENTAN	24.9	3.5	10.8	8.46	6.58	7.35	312	65	132	194	40	82
NHEPTANE	3.0	0.3	1.1	1.01	0.49	0.74	38	5	13	23	3	8
MCYHEXANE	1.4	0.2	0.5	0.48	0.37	0.37	17	4	7	11	2	4
25MHEXANE	3.3	0.4	1.3	1.14	0.85	0.88	42	8	16	26	5	10
24MC6+233M	3.0	0.3	1.2	1.01	0.61	0.84	37	6	15	23	4	9
234MC5	8.3	1.0	3.0	2.81	1.83	2.05	104	18	37	65	11	23
TOLUENE	22.4	3.8	10.1	7.61	7.19	6.93	259	65	115	161	41	71
23MC6+4MC7	3.2	0.4	1.3	1.10	0.73	0.88	40	7	16	25	4	10

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10702
DATE RUN: 09 27 77
CAR: 1977 FORD LTD 49 STATE VIN: 7B63M157057 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.9	0.3	1.2	0.99	0.61	0.79	37	6	14	23	4	9
3MHEPTANE	2.6	0.3	1.0	0.87	0.61	0.70	32	6	13	20	4	8
255MC6	3.6	0.5	1.4	1.24	0.97	0.98	46	10	18	28	6	11
N OCTANE	1.2	0.1	0.4	0.41	0.24	0.28	15	2	5	9	1	3
223MC6	0.5	0.1	0.2	0.17	0.12	0.14	6	1	3	4	1	2
ETCYHEXANE	0.7	0.1	0.2	0.23	0.12	0.14	8	1	2	5	1	2
ET BENZENE	2.7	0.3	0.8	0.93	0.49	0.56	32	4	9	20	3	6
M+PXYLENE	8.6	1.3	3.3	2.94	2.44	2.23	101	22	37	63	14	23
244MC8	1.3	0.2	0.5	0.43	0.37	0.33	16	4	6	10	2	4
O XYLENE	3.2	0.5	1.2	1.08	0.97	0.79	37	9	13	23	6	8
N NONANE	0.7	0.1	0.3	0.25	0.24	0.19	9	2	3	6	1	2
IPRBENZENE	0.5	0.1	0.2	0.19	0.24	0.14	6	2	2	4	1	1
NPRBENZENE	0.4	0.1	0.1	0.12	0.24	0.05	4	2	1	3	1	0
1M3ETBENZ	1.8	0.6	0.5	0.62	1.10	0.37	21	10	6	13	6	4
135MEBENZ	0.7	0.3	0.3	0.25	0.61	0.19	9	6	3	5	3	2
1M2ETBENZ	0.7	0.3	0.3	0.23	0.49	0.23	8	4	4	5	3	2
124MBENZ	1.8	1.0	0.7	0.62	1.83	0.51	21	17	9	13	10	5
SBUBENZENE	0.1	0.1	0.1	0.04	0.12	0.05	1	1	1	1	1	0
N DECANE	0.1	0.0	0.0	0.02	0.00	0.00	1	0	0	0	0	0
123MBENZ	0.2	0.2	0.1	0.08	0.37	0.09	3	3	2	2	2	1
INDANE	0.1	0.1	0.1	0.02	0.12	0.05	1	1	1	0	1	0
13EBENZENE	0.0	0.1	0.1	0.00	0.12	0.05	0	1	1	0	1	0
NBUBENZENE	0.2	0.1	0.2	0.06	0.24	0.14	2	2	2	1	1	1
1M3PRBENZ	0.1	0.2	0.2	0.04	0.37	0.14	1	3	2	1	2	1
UNKNOWNS	11.6	1.3	3.9	3.95	2.56	2.65	137	24	45	85	15	28

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10801
DATE RUN: 09 09 77
CAR: 1977 FORD LTD 49 STATE VIN: 7H63H157057 DRIVER: G S HYER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	283.0	48.3	208.7
GC PPMC	220.0	36.2	173.1

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	15.5	5.5	13.4	7.04	14.48	7.76	256	128	207	159	80	129
SATURATES	87.5	18.6	83.6	39.75	48.65	48.29	1293	386	1154	803	240	717
OLEFINS	54.7	6.4	36.9	24.87	16.67	21.33	790	129	498	491	80	310
ACETYLENE	1.9	0.0	1.4	0.87	0.00	0.80	26	0	17	16	0	11
NAPTHENES	4.1	0.5	3.9	1.88	1.35	2.24	60	10	52	37	6	32
AROMATICS	43.3	6.6	27.2	19.68	17.17	15.73	587	125	345	365	78	214
BENZENE	11.2	3.1	8.5	5.08	8.08	4.93	150	58	107	93	36	66
TOLUENE	15.1	2.3	10.6	6.86	6.06	6.12	205	44	134	127	27	83
C8+AROM	17.0	1.2	8.1	7.73	3.03	4.69	234	22	104	146	14	65
UNKNOWN	13.0	0.6	6.7	0.00	0.00	0.00	179	12	86	112	8	53
INDIVIDUAL COMPONENTS												
METHANE	15.5	5.5	13.4	7.04	14.48	7.76	256	128	207	159	80	129
ETHYLENE	15.4	2.1	9.9	6.99	5.39	5.73	222	42	134	138	26	83
ETHANE	2.6	1.2	2.1	1.19	3.20	1.19	41	27	30	25	16	18
ACETYLENE	1.9	0.0	1.4	0.87	0.00	0.88	26	0	17	16	0	11
C3 + C3=	15.1	1.7	8.8	6.86	4.38	5.10	218	34	119	135	21	74
C=C=C	0.3	0.0	0.0	0.16	0.00	0.00	5	0	0	3	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.3	0.5	2.1	0.58	1.35	1.22	19	11	30	12	7	18
B1 + IB	9.6	1.1	4.7	4.34	2.86	2.69	138	22	63	86	14	39
NC4 +B=1=3	5.9	2.2	10.6	2.70	5.72	6.12	89	46	148	55	29	92
TBUTENE-2	1.6	0.1	1.4	0.72	0.34	0.80	23	3	19	14	2	12
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.3	0.0	1.2	0.61	0.00	0.78	19	0	16	12	0	10
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.4	0.0	0.3	0.19	0.00	0.17	6	0	4	4	0	3
ISOPENTANE	9.3	3.0	16.2	4.21	7.91	9.37	138	63	225	86	39	140
PENTENE-1	0.3	0.0	0.3	0.13	0.00	0.17	4	0	4	3	0	3
2MBUT-1	0.9	0.0	0.8	0.42	0.00	0.45	13	0	11	8	0	7
NPENTANE	1.8	0.6	2.8	0.82	1.52	1.64	27	12	39	17	8	25
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10801
DATE RUN: 09 09 77
CAR: 1977 FORD LTD 49 STATE VIN: 7H63H157057 DRIVER: G S HYEK FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT-2	1.0	0.1	1.1	0.48	0.34	0.66	15	3	16	9	2	10
CISPENT-2	0.5	0.0	0.5	0.21	0.00	0.31	7	0	7	4	0	5
2MBUT-2	2.4	0.2	2.5	1.09	0.51	1.47	34	4	34	21	2	21
22MBUTANE	0.9	0.1	0.4	0.40	0.34	0.21	13	3	5	8	2	3
CYPENTENE	0.5	0.0	0.6	0.21	0.00	0.35	7	0	8	4	0	5
3MPENTENE	2.6	1.1	2.7	1.19	2.86	1.57	38	22	37	24	14	23
CYPENTANE	0.0	0.0	0.5	0.00	0.00	0.31	0	0	7	0	0	5
23MBUTANE	6.3	1.4	5.6	2.86	3.70	3.25	93	29	78	58	18	48
2MPENTANE	2.9	0.6	3.0	1.32	1.52	1.75	43	12	42	27	7	26
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
HEXENE-1	0.8	0.0	0.5	0.34	0.00	0.28	11	0	7	7	0	4
N HEXANE	1.6	0.3	1.5	0.72	0.84	0.84	23	7	20	14	4	12
TC6=3,=2	1.1	0.0	0.8	0.50	0.00	0.49	16	0	11	10	0	7
CC6=3	0.4	0.0	0.2	0.19	0.00	0.14	6	0	3	4	0	2
2MPENTENE2	0.5	0.0	0.4	0.24	0.00	0.21	8	0	5	5	0	3
MCYP43M2C5	2.2	0.3	1.9	0.98	0.84	1.12	31	7	26	19	4	16
24MPENTANE	3.7	0.6	3.1	1.69	1.68	1.78	55	13	42	34	8	26
BENZENE	11.2	3.1	8.5	5.08	8.08	4.93	150	58	107	93	36	66
CYHEXANE	0.6	0.1	0.5	0.29	0.17	0.28	9	1	7	6	1	4
2MC6+23MC5	8.5	1.4	6.8	3.87	3.54	3.92	125	28	93	78	17	58
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.5	0.4	1.9	1.14	1.01	1.12	37	8	27	23	5	17
224MPENTAN	16.7	3.4	12.6	7.57	8.92	7.31	245	70	174	152	44	108
NHEPTANE	1.9	0.2	1.3	0.87	0.51	0.73	28	4	17	18	2	11
MCYHEXANE	1.0	0.1	0.7	0.45	0.34	0.36	14	3	9	9	2	6
25MHEXANE	2.3	0.3	1.6	1.06	0.84	0.91	34	7	22	21	4	13
24MC6+233M	2.2	0.3	1.4	0.98	0.67	0.80	32	5	19	20	3	12
234MC5	6.1	0.8	3.8	2.76	2.02	2.20	90	16	52	56	10	33
TOLUENE	15.1	2.3	10.6	6.86	6.06	6.12	205	44	134	127	27	83
23MC6+4MC7	2.2	0.3	1.4	0.98	0.67	0.80	32	5	19	20	3	12

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10801
DATE RUN: 09 09 77
CAR: 1977 FORD LTD 49 STATE VIN: 7B63M157057 DRIVER: G S HYEK FUEL: SUNNER

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
34MHEXANE	2.0	0.2	1.3	0.90	0.51	0.73	29	4	17	18	2	11
3MHEPTANE	1.7	0.2	1.1	0.79	0.51	0.63	26	4	15	16	2	9
25DMC6	2.6	0.3	1.6	1.17	0.84	0.91	38	7	22	23	4	13
N OCTANE	0.8	0.1	0.4	0.37	0.34	0.24	12	3	6	7	2	4
223MC6	0.2	0.1	0.2	0.08	0.17	0.10	3	1	2	2	1	2
ETCYHEXANE	0.3	0.0	0.2	0.16	0.00	0.14	5	0	3	3	0	2
ET BENZENE	2.5	0.1	1.1	1.14	0.34	0.66	34	2	15	21	2	9
M+PXYLENE	5.9	0.5	3.6	2.67	1.35	2.10	80	10	46	50	6	29
2+4MC8	0.9	0.1	0.5	0.42	0.17	0.31	14	1	7	8	1	5
O XYLENE	2.1	0.2	1.3	0.95	0.51	0.73	29	4	16	18	2	10
N NONANE	0.6	0.1	0.3	0.26	0.17	0.17	9	1	4	5	1	3
IPRBENZENE	0.5	0.0	0.2	0.21	0.00	0.14	6	0	3	4	0	2
NPRBENZENE	0.4	0.0	0.1	0.19	0.00	0.07	6	0	2	3	0	1
1M3ETBENZ	1.5	0.1	0.7	0.66	0.17	0.38	20	1	9	12	1	5
135MEBENZ	0.6	0.1	0.3	0.26	0.17	0.17	8	1	4	5	1	2
1M2ETBENZ	0.6	0.1	0.0	0.29	0.17	0.00	9	1	0	5	1	0
124MBENZ	1.5	0.1	0.7	0.69	0.34	0.42	21	2	9	13	2	6
SBUBENZENE	0.2	0.0	0.0	0.11	0.00	0.00	3	0	0	2	0	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.3	0.0	0.0	0.16	0.00	0.00	5	0	0	3	0	0
INDANE	0.1	0.0	0.0	0.05	0.00	0.00	2	0	0	1	0	0
13EBENZENE	0.1	0.0	0.0	0.05	0.00	0.00	2	0	0	1	0	0
NBUBENZENE	0.3	0.0	0.0	0.13	0.00	0.00	4	0	0	3	0	0
1M3PRBENZ	0.3	0.0	0.0	0.16	0.00	0.00	5	0	0	3	0	0
UNKNOWNS	13.0	0.6	6.7	5.91	1.68	3.85	179	12	86	112	8	53

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10802
DATE RUN: 09 26 77
CAR: 1977 FORD LTD 49 STATE VIN: 7H63H157057 DRIVER: SWARTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	285.0	47.9	195.7
GC PPMC	267.8	44.0	169.9

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	17.0	6.8	11.6	6.35	15.35	6.84	233	138	171	145	86	106
SATURATES	110.6	17.2	81.8	41.31	39.06	48.17	1357	315	1079	843	196	671
OLEFINS	65.1	7.8	38.8	24.29	17.63	22.82	780	139	499	484	86	310
ACETYLENE	2.7	0.0	0.6	1.00	0.00	0.36	30	0	7	18	0	5
NAPTHENES	5.3	0.6	3.9	1.99	1.37	2.29	64	11	50	40	7	31
AROMATICS	55.7	10.9	28.4	20.80	24.77	16.73	627	183	344	389	114	214
BENZENE	13.2	4.3	10.6	4.93	9.88	6.23	147	72	127	91	45	79
TOLUENE	21.2	3.1	10.4	7.90	7.14	6.12	238	53	126	148	33	78
C8+AROM	21.3	3.4	7.4	7.96	7.75	4.37	244	58	91	152	36	57
UNKNOWN	11.4	0.8	4.7	0.00	0.00	0.00	131	14	58	81	9	36
INDIVIDUAL COMPONENTS												
METHANE	17.0	6.8	11.6	6.35	15.35	6.84	233	138	171	145	86	106
ETHYLENE	17.8	2.6	9.7	6.64	5.93	5.69	213	47	125	132	29	77
ETHANE	2.8	1.3	2.2	1.06	2.89	1.29	37	24	30	23	15	19
ACETYLENE	2.4	0.0	0.6	0.91	0.00	0.36	27	0	7	17	0	5
C3 + C3=	17.9	2.4	9.1	6.68	5.47	5.37	214	43	118	133	27	73
C=C=C	0.4	0.0	0.0	0.13	0.00	0.00	4	0	0	3	0	0
METHACETYL	0.2	0.0	0.0	0.09	0.00	0.00	3	0	0	2	0	0
ISOBUTANE	1.4	0.3	1.9	0.51	0.76	1.11	17	6	25	11	4	16
B1 + IB	11.0	1.3	5.6	4.12	3.04	3.30	132	24	72	82	15	45
NC4 +B=1=3	7.6	1.8	10.0	2.85	4.10	5.91	95	34	134	59	21	83
TBUTENE-2	2.0	0.2	1.3	0.73	0.46	0.79	23	4	17	15	2	11
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.5	0.1	1.2	0.58	0.30	0.72	16	2	16	11	1	10
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.5	0.0	0.2	0.18	0.00	0.14	6	0	3	4	0	2
ISOPENTANE	10.5	2.1	15.8	3.92	4.86	9.28	129	39	209	80	25	130
PENTENE-1	0.5	0.0	0.4	0.18	0.00	0.21	6	0	5	4	0	3
2MBUT-1	1.2	0.1	0.9	0.46	0.15	0.54	15	1	12	9	1	7
NPENTANE	2.1	0.5	2.6	0.77	1.06	1.65	26	9	37	16	5	23
2MB=1=3	1.2	0.1	0.5	0.44	0.30	0.32	14	2	7	9	1	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10802
DATE RUN: 09 26 77
CAR: 1977 FORD LTD 49 STATE VIN: 7Y63H157057 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.2	0.1	1.2	0.46	0.30	0.72	15	2	16	9	1	10
CISPENT-2	0.6	0.0	0.6	0.22	0.00	0.36	7	0	8	4	0	5
2MBUT-2	2.6	0.2	2.6	0.97	0.46	1.54	31	4	34	19	2	21
22MBUTANE	0.9	0.3	0.5	0.35	0.76	0.29	12	6	6	7	4	4
CYPENTENE	0.5	0.1	0.3	0.18	0.15	0.18	6	1	4	3	1	2
3MPENTENE	3.1	0.5	3.1	1.15	1.06	1.83	37	8	40	23	5	25
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	5.7	1.2	5.4	2.12	2.74	3.19	70	22	71	43	14	44
2MPENTANE	3.3	0.5	3.0	1.24	1.22	1.76	41	10	39	25	6	24
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
HEXENE-1	0.7	0.0	0.4	0.27	0.00	0.25	9	0	5	5	0	3
N HEXANE	1.9	0.3	1.6	0.71	0.76	0.93	23	6	21	14	4	13
TC6=3,=2	1.3	0.0	0.8	0.49	0.00	0.47	16	0	10	10	0	6
CC6=3	0.5	0.0	0.3	0.18	0.00	0.18	6	0	4	4	0	2
2MPENTENE2	0.7	0.0	0.4	0.24	0.00	0.21	8	0	5	5	0	3
MCYP4,3M2C5	2.5	0.3	2.0	0.95	0.76	1.18	31	6	26	19	4	16
24MPENTANE	4.7	0.6	3.2	1.75	1.37	1.90	57	11	42	36	7	26
BENZENE	13.2	4.3	10.6	4.93	9.88	6.23	147	72	127	91	45	79
CYHEXANE	0.8	0.1	0.9	0.29	0.15	0.50	9	1	11	6	1	7
2MC6+23MC5	11.1	1.4	6.9	4.16	3.19	4.05	136	26	90	85	16	56
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.3	0.4	2.0	1.24	0.91	1.18	41	7	26	25	5	16
224MPENTAN	22.6	3.1	12.5	8.43	6.99	7.34	275	56	164	171	35	102
NHEPTANE	2.9	0.2	1.3	1.08	0.46	0.79	35	4	18	22	2	11
MCYHEXANE	1.3	0.1	0.8	0.49	0.30	0.47	16	2	10	10	1	6
25MHEXANE	4.1	0.4	1.9	1.53	0.91	1.15	50	7	26	31	5	16
24MC6+233M	2.0	0.2	1.0	0.73	0.46	0.57	24	4	13	15	2	8
234MC5	8.2	0.8	3.3	3.05	1.82	1.97	100	15	44	62	9	27
TOLUENE	21.2	3.1	10.4	7.90	7.14	6.12	238	53	126	148	33	78
23MC6+4MC7	3.1	0.3	1.4	1.17	0.76	0.82	38	6	18	24	4	11

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10802
DATE RUN: 09 26 77
CAR: 1977 FORD LTD 49 STATE VIN: 7B63H157057 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.8	0.3	1.2	1.04	0.76	0.72	34	6	16	21	4	10
3MHEPTANE	2.5	0.3	1.1	0.95	0.61	0.64	31	5	14	19	3	9
255MC6	3.5	0.3	1.5	1.31	0.76	0.86	43	6	19	26	4	12
N OCTANE	1.1	0.1	0.4	0.40	0.30	0.25	13	2	6	8	2	3
223MC6	0.5	0.1	0.2	0.20	0.15	0.14	6	1	3	4	1	2
ETCYHEXANE	0.7	0.1	0.2	0.27	0.15	0.14	9	1	3	5	1	2
ET BENZENE	3.1	0.2	0.8	1.17	0.46	0.47	36	3	10	22	2	6
M+PXYLENE	8.5	0.9	3.2	3.19	2.13	1.86	97	16	39	60	10	24
2+4MC8	1.2	0.1	0.4	0.46	0.30	0.25	15	2	6	9	2	3
O XYLENE	3.0	0.4	1.1	1.11	0.91	0.64	34	7	13	21	4	8
N NONANE	0.7	0.1	0.2	0.27	0.15	0.14	9	1	3	5	1	2
IPRBENZENE	1.1	0.1	0.2	0.42	0.15	0.11	13	1	2	8	1	1
NPRBENZENE	0.9	0.1	0.1	0.35	0.15	0.07	11	1	1	7	1	1
1M3ETBENZ	1.5	0.3	0.5	0.58	0.76	0.32	18	6	7	11	4	4
135MEBENZ	0.6	0.2	0.2	0.22	0.46	0.14	7	3	3	4	2	2
1M2ETBENZ	0.5	0.1	0.2	0.20	0.30	0.14	6	2	3	4	1	2
124MBENZ	1.4	0.6	0.7	0.53	1.37	0.43	16	10	9	10	6	6
SBUBENZENE	0.1	0.1	0.1	0.04	0.30	0.04	1	2	1	1	1	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.2	0.1	0.1	0.07	0.30	0.07	2	2	1	1	1	1
INDANE	0.0	0.1	0.0	0.00	0.15	0.00	0	1	0	0	1	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.1	0.1	0.04	0.15	0.04	1	1	1	1	1	0
1M3PRBENZ	0.1	0.1	0.1	0.04	0.15	0.04	1	1	1	1	1	0
UNKNOWNS	11.4	0.8	4.7	4.27	1.82	2.79	131	14	58	81	9	36

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10611
DATE RUN: 09 12 77 AIR CONDITIONER USED
CAR: 1977 FORD LTD 49 STATE VIN: 7U63M157057 DRIVER: G S MYER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	289.8	64.7	204.0
GC PPMC	213.8	51.4	170.9

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	19.7	7.2	12.6	9.19	14.01	7.37	350	175	197	218	109	122
SATURATES	84.8	17.9	77.5	39.68	34.90	45.33	1354	390	1083	841	243	673
OLEFINS	47.4	11.3	40.8	22.15	21.98	23.90	738	240	558	459	149	347
ACETYLENE	1.8	0.1	0.6	0.85	0.12	0.36	26	1	8	16	1	5
NAPTHENES	4.2	0.9	3.5	1.97	1.81	2.07	66	20	48	41	12	30
AROMATICS	47.4	12.5	30.2	22.17	24.28	17.69	694	249	388	431	155	241
BENZENE	13.4	5.0	10.3	6.26	9.66	6.03	194	98	131	120	61	81
TOLUENE	18.0	4.0	11.7	8.44	7.85	6.87	264	81	150	164	50	94
C8+AROM	16.0	3.5	8.2	7.47	6.76	4.79	238	70	107	148	44	66
UNKNOWN	8.5	1.5	5.6	0.00	0.00	0.00	127	30	73	79	19	45
INDIVIDUAL COMPONENTS												
METHANE	19.7	7.2	12.6	9.19	14.01	7.37	350	175	197	218	109	122
ETHYLENE	20.0	3.7	11.0	9.38	7.25	6.43	312	79	150	194	49	93
ETHANE	1.6	1.2	2.1	0.75	2.29	1.24	27	27	31	17	17	19
ACETYLENE	1.8	0.1	0.6	0.85	0.12	0.36	26	1	8	16	1	5
C3 + C3=	1.8	3.7	10.6	0.83	7.25	6.18	28	79	144	17	49	90
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.0	0.4	1.6	0.48	0.72	0.91	17	8	22	10	5	14
B1 + IB	11.6	2.2	6.6	5.44	4.23	3.69	181	46	91	113	29	56
NC4 +B=1=3	6.6	1.8	7.9	3.08	3.50	4.65	106	40	112	66	25	70
TBUTENE-2	1.9	0.3	1.2	0.86	0.60	0.73	29	7	17	18	4	11
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.7	0.2	1.2	0.79	0.36	0.69	26	4	16	16	2	10
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.5	0.1	0.2	0.21	0.12	0.15	7	1	3	4	1	2
ISOPENTANE	9.6	2.4	13.5	4.48	4.59	7.38	153	52	189	95	32	118
PENTENE-1	0.3	0.0	0.2	0.12	0.00	0.15	4	0	3	3	0	2
2MBUT-1	1.0	0.0	0.8	0.45	0.00	0.47	15	0	11	9	0	7
NPENTANE	1.9	0.6	2.5	0.88	1.89	1.45	30	12	35	19	8	22
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10811
DATE RUN: 09 12 77 AIR CONDITIONER USED
CAR: 1977 FORD LTD 49 STATE VIN: 7B63M157057 DRIVER: G S HYEK FUEL: SUMNER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.0	0.1	1.0	0.45	0.24	0.58	15	3	14	9	2	8
CISPENT-2	0.4	0.0	0.5	0.18	0.00	0.29	6	0	7	4	0	4
2MBUT-2	2.5	0.3	2.4	1.15	0.60	1.42	38	7	33	24	4	21
22MBUTANE	0.4	0.1	0.2	0.18	0.12	0.15	6	1	3	4	1	2
CYPENTENE	0.3	0.1	0.2	0.12	0.12	0.15	4	1	3	2	1	2
3MPENTENE	2.3	0.4	2.6	1.09	0.85	1.53	36	9	36	23	6	22
CYPENTANE	0.0	0.2	0.0	0.00	0.36	0.00	0	4	0	0	2	0
23MBUTANE	5.9	1.0	5.6	2.76	1.93	3.31	95	22	79	59	13	49
2MPENTANE	2.8	0.5	3.0	1.30	0.97	1.74	44	11	42	28	7	26
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
HEXENE-1	0.6	0.1	0.6	0.27	0.12	0.33	9	1	8	6	1	5
N HEXANE	1.5	0.3	1.4	0.70	0.60	0.84	24	7	20	15	4	12
TC6=3,=2	1.0	0.1	0.9	0.45	0.12	0.54	15	1	13	9	1	8
CC6=3	0.3	0.0	0.2	0.12	0.00	0.15	4	0	3	3	0	2
2MPENTENE2	0.5	0.1	0.4	0.21	0.12	0.25	7	1	6	4	1	4
MCYP43M2C5	2.1	0.4	2.0	0.97	0.72	1.16	32	8	27	20	5	17
24MPENTANE	3.4	0.6	3.1	1.60	1.21	1.82	55	13	43	34	8	27
BENZENE	13.4	5.0	10.3	6.26	9.66	6.03	194	98	131	120	61	81
CYHEXANE	0.6	0.1	0.6	0.30	0.24	0.33	10	3	8	6	2	5
2MC6+23MC5	8.2	1.4	6.8	3.84	2.66	3.96	131	30	94	81	18	59
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.4	0.4	2.0	1.12	0.72	1.16	38	8	28	24	5	17
224MPENTAN	16.3	3.0	12.4	7.62	5.80	7.26	259	64	173	161	40	107
NHEPTANE	1.8	0.2	1.4	0.85	0.48	0.80	29	5	19	18	3	12
MCYHEXANE	1.0	0.2	0.7	0.45	0.36	0.40	15	4	9	9	2	6
25MHEXANE	2.3	0.6	1.4	1.06	1.09	0.84	36	12	20	22	8	12
24MC6+233M	2.1	0.3	1.6	0.97	0.60	0.91	33	7	22	20	4	13
234MC5	5.8	1.1	3.6	2.72	2.05	2.11	92	23	50	57	14	31
TOLUENE	18.0	4.0	11.7	8.44	7.65	6.87	264	81	150	164	50	94
23MC6+4MC7	2.3	0.5	1.6	1.06	0.97	0.91	36	11	22	22	7	13

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10811
DATE RUN: 09 12 77 AIR CONDITIONER USED
CAR: 1977 FORD LTD 49 STATE VIN: 7B63H157057 DRIVER: G S HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.0	0.4	1.4	0.94	0.85	0.84	32	9	20	20	6	12
3MHEPTANE	1.7	0.4	1.2	0.82	0.72	0.73	28	8	17	17	5	11
25MHC6	2.5	0.5	1.6	1.18	0.97	0.94	40	11	22	25	7	14
N OCTANE	0.8	0.1	0.4	0.36	0.24	0.22	12	3	5	8	2	3
23DMC6	0.4	0.1	0.2	0.18	0.12	0.11	6	1	3	4	1	2
ETCYHEXANE	0.5	0.1	0.3	0.24	0.12	0.18	8	1	4	5	1	3
ET BENZENE	2.7	0.3	1.2	1.24	0.60	0.69	39	6	15	24	4	9
M+PXYLENE	6.8	1.2	3.7	3.18	2.42	2.18	100	25	48	62	16	30
244MC8	0.9	0.2	0.6	0.42	0.36	0.36	14	4	9	9	2	5
O XYLENE	2.3	0.5	1.3	1.06	0.97	0.76	33	10	17	21	6	10
N NONANE	0.5	0.1	0.4	0.24	0.24	0.22	8	3	5	5	2	3
IPRBENZENE	0.4	0.1	0.2	0.18	0.12	0.15	6	1	3	4	1	2
NPRBENZENE	0.3	0.1	0.1	0.15	0.12	0.04	5	1	1	3	1	1
1M3ETBENZ	1.2	0.3	0.6	0.57	0.60	0.33	18	6	7	11	4	5
135MEBENZ	0.5	0.2	0.2	0.24	0.36	0.15	8	4	3	5	2	2
1M2ETBENZ	0.5	0.1	0.2	0.21	0.24	0.15	7	3	3	4	2	2
124MBENZ	1.1	0.5	0.5	0.51	0.97	0.29	16	10	6	10	6	4
SBUBENZENE	0.1	0.0	0.1	0.03	0.00	0.04	1	0	1	1	0	1
N DECANE	0.1	0.0	0.0	0.06	0.00	0.00	2	0	0	1	0	0
123MBENZ	0.2	0.1	0.1	0.09	0.24	0.04	3	3	1	2	2	1
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.1	0.0	0.00	0.12	0.00	0	1	0	0	1	0
NBUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1M3PRBENZ	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
UNKNOWNS	8.5	1.5	5.6	3.99	2.90	3.27	127	30	73	79	19	45

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10812
DATE RUN: 09 23 77 AIR CONDITIONER USED
CAR: 1977 FORD LTD 49 STATE VIN: 7D63H157057 DRIVER: SWARTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	307.8	75.4	259.6
GC PPMC	249.9	69.1	225.4

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	17.2	9.8	12.7	6.88	14.12	5.65	264	204	191	164	127	119
SATURATES	104.7	23.4	110.9	41.89	33.84	49.21	1439	437	1489	894	271	926
OLEFINS	62.3	15.7	46.9	24.93	22.65	20.80	836	286	615	520	177	382
ACETYLENE	1.9	0.3	0.7	0.77	0.38	0.31	24	4	9	15	3	5
NAPTHENES	5.4	1.1	5.2	2.17	1.61	2.31	73	20	68	45	13	42
AROMATICS	48.6	17.3	40.3	19.44	25.02	17.87	613	296	496	381	184	308
BENZENE	13.5	7.5	11.4	5.41	10.90	5.08	169	128	139	105	79	87
TOLUENE	18.8	5.1	15.6	7.51	7.39	6.94	237	88	193	147	54	120
C8+AROM	16.3	4.7	13.2	6.52	6.73	5.85	209	81	165	130	50	103
UNKNOWN	9.8	1.6	8.7	0.00	0.00	0.00	126	29	109	78	18	68
INDIVIDUAL COMPONENTS												
METHANE	17.2	9.8	12.7	6.88	14.12	5.65	264	204	191	164	127	119
ETHYLENE	16.3	4.9	11.3	6.52	7.11	5.00	219	90	148	136	56	92
ETHANE	2.8	1.4	2.2	1.13	1.99	0.96	41	27	30	25	17	19
ACETYLENE	1.7	0.3	0.7	0.67	0.38	0.31	21	4	9	13	3	5
C3 + C3=	16.7	4.7	10.0	6.69	6.73	4.45	224	85	132	140	53	82
C=C=C	0.3	0.0	0.0	0.12	0.00	0.00	4	0	0	2	0	0
METHACETYL	0.2	0.0	0.0	0.10	0.00	0.00	3	0	0	2	0	0
ISOBUTANE	1.4	0.5	1.7	0.55	0.66	0.75	19	9	23	12	5	14
B1 + IB	10.3	2.8	6.4	4.11	4.06	2.85	138	51	84	86	32	52
NC4 +B=1=3	7.3	2.3	9.7	2.94	3.32	4.30	102	43	132	63	27	82
TBUTENE-2	1.9	0.4	1.5	0.75	0.57	0.65	25	7	19	16	4	12
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.5	0.3	1.3	0.60	0.47	0.57	20	6	17	13	4	10
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.4	0.1	0.4	0.17	0.09	0.16	6	1	5	4	1	3
ISOPENTANE	11.7	2.9	18.2	4.67	4.27	8.05	161	55	245	100	34	152
PENTENE-1	0.5	0.1	0.5	0.19	0.19	0.21	6	2	6	4	1	4
2MBUT-1	1.3	0.6	1.2	0.53	0.85	0.54	18	11	16	11	7	10
NPENTANE	2.3	0.3	3.4	0.94	0.38	1.50	32	5	46	20	3	28
2MB=1=3	1.0	0.2	0.4	0.38	0.28	0.16	13	3	4	8	2	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10612
DATE RUN: 09 23 77 AIR CONDITIONER USED
CAR: 1977 FORD LTD 49 STATE VIN: 7B63H157057 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.4	0.1	1.6	0.55	0.09	0.73	19	1	21	12	1	13
C1SPENT-2	0.7	0.0	0.8	0.29	0.00	0.36	10	0	11	6	0	7
2MBUT-2	2.9	0.4	3.6	1.18	0.57	1.58	40	7	47	25	4	29
22MBUTANE	0.7	0.1	0.4	0.29	0.19	0.16	10	2	5	6	2	3
CYPENTENE	0.4	0.1	0.4	0.17	0.09	0.18	5	1	5	3	1	3
3MPENTENE	3.3	0.8	4.3	1.32	1.14	1.89	44	14	56	28	9	35
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	6.3	1.2	7.5	2.50	1.80	3.32	86	23	100	53	14	62
2MPENTANE	3.7	0.7	4.2	1.49	1.04	1.86	51	13	56	32	8	35
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
HEXENE-1	0.7	0.1	0.7	0.29	0.09	0.31	10	1	9	6	1	6
N HEXANE	2.1	0.4	2.3	0.84	0.57	1.01	29	7	31	18	5	19
TC6=3,=2	1.4	0.1	1.5	0.58	0.19	0.67	19	2	20	12	1	12
CC6=3	0.5	0.0	0.4	0.19	0.00	0.18	6	0	5	4	0	3
2MPENTENE2	0.7	0.1	0.7	0.29	0.09	0.31	10	1	9	6	1	6
MCYP43M2C5	2.9	0.5	3.0	1.18	0.76	1.35	40	10	40	25	6	25
24MPENTANE	4.8	0.9	4.7	1.92	1.33	2.07	66	17	63	41	11	39
BENZENE	13.5	7.5	11.4	5.41	10.90	5.08	169	128	139	105	79	87
CYHEXANE	0.8	0.3	0.6	0.31	0.38	0.28	10	5	8	7	3	5
2MC6+23MC5	11.1	2.2	10.6	4.43	3.13	4.69	152	40	141	94	25	88
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.2	0.7	3.0	1.28	0.95	1.35	44	12	41	27	8	25
224MPENTAN	20.8	4.5	19.3	8.33	6.45	8.57	284	83	258	177	51	160
NHEPTANE	2.5	0.4	2.3	1.01	0.57	1.01	35	7	30	22	5	19
MCYHEXANE	1.2	0.3	1.1	0.48	0.38	0.49	16	5	15	10	3	9
25MHEXANE	2.7	0.5	2.5	1.08	0.76	1.09	37	10	33	23	6	20
24MC6+233M	2.5	0.5	2.3	0.99	0.76	1.01	34	10	30	21	6	19
234MC5	6.7	1.2	6.0	2.67	1.71	2.67	91	22	80	57	14	50
TOLUENE	18.8	5.1	15.6	7.51	7.39	6.94	237	88	193	147	54	120
23MC6+4MC7	2.6	0.5	2.3	1.03	0.76	1.01	35	10	30	22	6	19

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10812
DATE RUN: 09 23 77 AIR CONDITIONER USED
CAR: 1977 FORD LTD 49 STATE VIN: 7B63H157057 DRIVEN: SWARTZLANDER FUEL: SUNNER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
3+MHEXANE	2.2	0.5	2.0	0.89	0.66	0.91	30	9	27	19	5	17
3MHEPTANE	2.0	0.5	1.8	0.79	0.66	0.80	27	9	24	17	5	15
255MC6	2.7	0.7	2.5	1.08	0.95	1.09	37	12	33	23	8	20
N OCTANE	0.8	0.3	0.8	0.34	0.38	0.34	12	5	10	7	3	6
223MC6	0.4	0.1	0.3	0.14	0.09	0.13	5	1	4	3	1	2
ETCYHEXANE	0.5	0.1	0.4	0.19	0.09	0.18	6	1	5	4	1	3
ET BENZENE	2.4	0.3	1.7	0.96	0.47	0.75	31	6	21	19	4	13
M+PXYLENE	6.7	1.6	5.3	2.67	2.27	2.33	85	27	65	53	17	41
2+4MC8	0.9	0.2	0.8	0.36	0.28	0.36	12	4	11	8	2	7
O XYLENE	2.2	0.6	1.9	0.89	0.85	0.83	28	10	23	18	6	14
N NONANE	0.5	0.1	0.5	0.19	0.19	0.21	7	2	6	4	2	4
IPRBENZENE	0.4	0.1	0.4	0.14	0.09	0.16	5	1	4	3	1	3
NPRBENZENE	0.3	0.1	0.2	0.12	0.19	0.10	4	2	3	2	1	2
1M3ETBENZ	1.3	0.5	1.0	0.53	0.76	0.44	17	9	12	11	6	8
135MEBENZ	0.5	0.3	0.5	0.22	0.38	0.21	7	5	6	4	3	4
1M2ETBENZ	0.5	0.2	0.5	0.19	0.28	0.21	6	3	6	4	2	4
124MBENZ	1.4	0.7	1.2	0.55	1.04	0.52	18	13	15	11	8	9
SBUBENZENE	0.1	0.0	0.1	0.05	0.00	0.05	2	0	1	1	0	1
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.2	0.1	0.2	0.07	0.19	0.08	2	2	2	1	1	1
INDANE	0.1	0.0	0.1	0.02	0.00	0.03	1	0	1	0	0	0
13EBENZENE	0.0	0.0	0.1	0.00	0.00	0.03	0	0	1	0	0	0
NBUBENZENE	0.1	0.1	0.2	0.05	0.09	0.08	2	1	2	1	1	1
1M3PRBENZ	0.1	0.1	0.1	0.05	0.09	0.05	2	1	1	1	1	1
UNKNOWNS	9.8	1.6	8.7	3.92	2.37	3.86	126	29	109	78	18	68

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10901
DATE RUN: 09 13 77
CAR: 1977 FORD LTD 49 STATE VIN: 7B63H157057 DRIVER: G S HYEK FUEL: SUNNER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	232.8	50.2	187.5
GC PPMC	199.4	50.2	176.0

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	17.9	7.2	11.0	8.96	14.35	6.26	268	135	151	167	84	94
SATURATES	73.6	19.4	86.0	36.93	38.59	48.85	986	324	1053	614	202	654
OLEFINS	56.9	9.6	40.3	28.52	19.08	22.89	745	157	482	463	97	300
ACETYLENE	1.8	0.0	0.5	0.91	0.00	0.27	22	0	5	14	0	3
NAPTHENES	3.5	0.7	3.9	1.75	1.43	2.23	46	12	47	28	7	29
AROMATICS	38.9	12.5	29.3	19.52	24.82	16.66	479	191	329	298	119	205
BENZENE	13.1	5.2	9.5	6.59	10.33	5.40	160	79	105	99	49	66
TOLUENE	14.8	3.5	11.7	7.41	6.89	6.63	182	53	131	113	33	81
C8+AROM	11.0	3.8	8.2	5.52	7.60	4.63	138	60	93	86	37	58
UNKNOWN	6.8	0.9	5.0	0.00	0.00	0.00	85	14	57	53	8	35
INDIVIDUAL COMPONENTS												
METHANE	17.9	7.2	11.0	8.96	14.35	6.26	268	135	151	167	84	94
ETHYLENE	18.1	3.2	10.1	9.09	6.46	5.76	238	53	121	148	33	75
ETHANE	3.2	1.4	2.2	1.62	2.87	1.23	46	25	28	28	16	17
ACETYLENE	1.8	0.0	0.5	0.91	0.00	0.27	22	0	5	14	0	3
C3 + C3=	16.1	3.0	9.8	8.05	5.88	5.56	211	48	117	131	30	73
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.8	0.4	1.8	0.42	0.72	1.03	11	6	23	7	4	14
B1 + IB	9.8	1.6	5.5	4.94	3.16	3.13	129	26	66	80	16	41
NC4 +B=1=3	5.7	1.9	8.4	2.86	3.87	4.80	77	33	105	48	20	65
TBUTENE-2	1.6	0.3	1.3	0.81	0.57	0.73	21	5	15	13	3	10
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.4	0.1	1.2	0.71	0.29	0.70	19	2	15	12	1	9
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.3	0.0	0.3	0.16	0.00	0.17	4	0	4	3	0	2
ISOPENTANE	8.4	2.5	14.6	4.22	5.02	8.40	114	42	180	71	26	112
PENTENE-1	0.2	0.0	0.3	0.10	0.00	0.17	3	0	4	2	0	2
2MBUT-1	0.8	0.0	0.9	0.39	0.00	0.50	10	0	11	6	0	7
NPENTANE	1.7	0.6	2.8	0.84	1.15	1.60	23	10	35	14	6	22
2MB=1=3	0.9	0.1	0.4	0.45	0.14	0.20	12	1	4	7	1	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10901
DATE RUN: 09 13 77
CAR: 1977 FORD LTD 49 STATE VIN: 7B63H157057 DRIVER: G S HYLK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT-2	0.9	0.1	1.2	0.45	0.29	0.70	12	2	15	7	1	9
CISPENT-2	0.3	0.0	0.5	0.16	0.00	0.30	4	0	6	3	0	4
2MBUT-2	2.2	0.2	2.8	1.10	0.43	1.60	29	4	34	18	2	21
22MBUTANE	0.8	0.4	0.4	0.42	0.72	0.23	11	6	5	7	4	3
CYPENTENE	0.3	0.1	0.3	0.13	0.14	0.17	3	1	3	2	1	2
3MPENTENE	2.1	0.6	2.9	1.07	1.29	1.63	28	11	34	17	7	21
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	5.0	1.4	6.1	2.50	2.73	3.47	67	23	75	42	14	46
2MPENTANE	2.5	0.6	3.2	1.23	1.29	1.80	33	11	39	21	7	24
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
HEXENE-1	0.6	0.1	0.6	0.32	0.29	0.33	8	2	7	5	1	4
N HEXANE	1.2	0.4	1.6	0.62	0.72	0.93	17	6	20	10	4	12
TC6=3,=2	0.5	0.1	1.4	0.26	0.14	0.80	7	1	17	4	1	10
CC6=3	0.<	0.0	0.3	0.10	0.00	0.17	3	0	4	2	0	2
2MPENTENE2	0.4	0.0	0.5	0.19	0.00	0.27	5	0	6	3	0	3
MCYP43M2C5	1.8	0.4	2.2	0.91	0.86	1.27	24	7	27	15	4	17
24MPENTANE	3.1	0.7	3.5	1.56	1.43	2.00	42	12	43	26	7	27
BENZENE	13.1	5.2	9.5	6.59	10.33	5.40	160	79	105	99	49	66
CYHEXANE	0.6	0.1	0.5	0.29	0.14	0.30	8	1	6	5	1	4
2MC6+23MC5	7.1	1.6	7.7	3.54	3.16	4.40	94	26	94	59	16	59
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.1	0.5	2.3	1.04	1.00	1.30	28	8	28	17	5	17
224MPENTAN	13.9	3.4	14.3	6.95	6.74	8.10	185	56	174	115	35	108
MHEPTANE	1.6	0.2	1.7	0.78	0.43	0.97	21	4	21	13	2	13
MCYHEXANE	0.8	0.1	0.9	0.39	0.29	0.50	10	2	11	6	1	7
25MHEXANE	1.9	0.4	1.8	0.94	0.72	1.03	25	6	22	16	4	14
24MC6+233M	1.7	0.4	1.6	0.84	0.72	0.93	22	6	20	14	4	12
234MC5	4.8	0.9	4.3	2.40	1.87	2.47	64	16	53	40	10	33
TOLUENE	14.8	3.5	11.7	7.41	6.89	6.63	182	53	131	113	33	81
23MC6+4MC7	1.7	0.4	1.6	0.88	0.72	0.93	23	6	20	15	4	12

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10901
DATE RUN: 09 13 77
CAR: 1977 FORD LTD 49 STATE VIN: 7B63H157057 DRIVER: G S HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.6	0.3	1.4	0.78	0.57	0.80	21	5	17	13	3	11
3MHEPTANE	1.4	0.3	1.2	0.68	0.57	0.70	18	5	15	11	3	9
255MC6	1.9	0.4	1.8	0.97	0.72	1.00	26	6	21	16	4	13
N OCTANE	0.5	0.1	0.5	0.26	0.29	0.30	7	2	6	4	1	4
223MC6	0.2	0.1	0.2	0.10	0.14	0.10	3	1	2	2	1	1
ETCYHEXANE	0.3	0.1	0.3	0.16	0.14	0.17	4	1	4	3	1	2
ET BENZENE	1.9	0.2	1.2	0.94	0.43	0.70	23	3	14	14	2	9
M+PXYLENE	5.0	1.1	3.6	2.50	2.15	2.07	62	17	41	38	10	26
244MC8	0.6	0.1	0.5	0.32	0.29	0.30	9	2	6	5	1	4
O XYLENE	1.6	0.4	1.2	0.81	0.86	0.70	20	7	14	12	4	9
N NONANE	0.3	0.1	0.2	0.13	0.14	0.13	3	1	3	2	1	2
IPRBENZENE	0.2	0.1	0.2	0.10	0.14	0.10	2	1	2	2	1	1
NPRBENZENE	0.1	0.1	0.1	0.06	0.14	0.07	2	1	1	1	1	1
1M3ETBENZ	0.8	0.4	0.6	0.42	0.86	0.37	11	7	7	7	4	5
135MEBENZ	0.3	0.2	0.2	0.16	0.43	0.13	4	3	3	3	2	2
1M2ETBENZ	0.3	0.1	0.3	0.16	0.29	0.17	4	2	3	3	1	2
124MBENZ	0.7	0.6	0.6	0.36	1.29	0.33	9	10	7	6	6	4
SBUBENZENE	0.0	0.1	0.0	0.00	0.14	0.00	0	1	0	0	1	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.0	0.1	0.0	0.00	0.29	0.00	0	2	0	0	1	0
INDANE	0.0	0.1	0.0	0.00	0.14	0.00	0	1	0	0	1	0
13EBENZENE	0.0	0.1	0.0	0.00	0.14	0.00	0	1	0	0	1	0
NBUBENZENE	0.0	0.1	0.0	0.00	0.29	0.00	0	2	0	0	1	0
1M3PRBENZ	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
UNKNOWNS	6.8	0.9	5.0	3.41	1.72	2.83	85	14	57	53	8	35

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10902
DATE RUN: 09 22 77
CAR: 1977 FORD LTD 49 STATE VIN: 7B63H157057 DRIVER: G S HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	221.4	42.5	188.2
GC PPMC	195.3	40.0	160.9

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
MAJOR COMPONENTS												
METHANE	15.1	5.5	10.8	7.74	13.70	6.70	220	108	164	137	67	102
SATURATES	71.7	13.4	77.7	36.72	33.39	48.31	935	235	1057	581	146	657
OLEFINS	49.9	6.6	36.6	25.54	16.54	22.74	635	114	486	395	71	302
ACETYLENE	1.5	0.2	0.5	0.77	0.47	0.29	18	3	6	11	2	4
NAPTHENES	3.6	0.8	3.2	1.86	1.89	2.00	46	13	43	29	8	27
AROMATICS	43.1	11.3	27.6	22.07	28.35	17.16	516	183	344	321	114	214
BENZENE	11.5	3.7	8.7	5.91	9.13	5.43	137	58	108	85	36	67
TOLUENE	14.4	2.6	10.1	7.37	6.61	6.26	172	43	126	107	27	78
C8+ARUM	17.2	5.0	8.8	8.79	12.60	5.46	209	83	112	130	51	69
UNKNOWN	10.3	2.3	4.5	0.00	0.00	0.00	126	37	57	78	23	35
INDIVIDUAL COMPONENTS												
METHANE	15.1	5.5	10.8	7.74	13.70	6.70	220	108	164	137	67	102
ETHYLENE	14.0	2.0	8.9	7.18	4.88	5.53	179	34	118	111	21	73
ETHANE	2.5	1.1	2.2	1.30	2.83	1.37	35	21	31	22	13	19
ACETYLENE	1.3	0.2	0.5	0.65	0.47	0.29	15	3	6	9	2	4
C3 + C3=	14.5	2.0	9.0	7.40	5.04	5.62	184	35	120	114	22	75
C=C=C	0.3	0.0	0.2	0.15	0.00	0.10	4	0	2	2	0	1
METHACETYL	0.2	0.0	0.0	0.12	0.00	0.00	3	0	0	2	0	0
ISOBUTANE	1.0	0.3	2.0	0.53	0.79	1.27	14	6	28	8	3	17
B1 + IB	8.6	1.3	5.4	4.43	3.15	3.33	110	22	71	68	13	44
NC4 +B=1=3	5.9	1.5	9.8	3.00	3.78	6.06	77	27	134	46	17	83
TBUTENE-2	1.5	0.3	1.3	0.77	0.63	0.78	19	4	17	12	3	10
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.2	0.1	1.0	0.62	0.31	0.64	15	2	14	10	1	8
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.3	0.0	0.2	0.15	0.00	0.15	4	0	3	2	0	2
ISOPENTANE	7.9	1.7	15.4	4.06	4.25	9.58	104	30	211	65	19	131
PENTENE-1	0.3	0.0	0.3	0.15	0.00	0.20	4	0	4	2	0	3
2MBUT-1	0.9	0.1	0.9	0.46	0.16	0.54	12	1	11	7	1	7
NPENTANE	1.5	0.3	2.8	0.77	0.79	1.71	20	6	38	12	3	23
2MB=1=3	0.9	0.1	0.5	0.46	0.31	0.29	11	2	6	7	1	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10902
DATE RUN: 09 22 77
CAR: 1977 FURD LTD 49 STATE VIN: 7U63H157057 DRIVER: G S HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.8	0.1	1.1	0.43	0.16	0.68	11	1	15	7	1	9
CISPENT-2	0.4	0.0	0.6	0.19	0.00	0.34	5	0	7	3	0	5
2MBUT-2	1.9	0.2	2.4	0.96	0.47	1.47	24	3	31	15	2	19
22MBUTANE	0.8	0.1	0.4	0.43	0.16	0.24	11	1	5	7	1	3
CYPENTENE	0.3	0.1	0.6	0.15	0.31	0.34	4	2	7	2	1	4
3MPENTENE	2.1	0.4	2.8	1.05	1.10	1.76	26	8	38	16	5	23
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	3.9	0.7	5.1	1.98	1.73	3.18	50	12	70	31	8	43
2MPENTANE	2.3	0.4	2.8	1.18	0.94	1.76	30	7	39	19	4	24
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
HEXENE-1	0.4	0.0	0.3	0.22	0.00	0.20	5	0	4	3	0	3
N HEXANE	1.3	0.3	1.5	0.65	0.63	0.93	17	4	20	10	3	13
TC6=3,=2	0.8	0.0	0.7	0.40	0.00	0.44	10	0	9	6	0	6
CC6=3	0.3	0.0	0.2	0.15	0.00	0.15	4	0	3	2	0	2
2MPENTENE2	0.4	0.0	0.3	0.19	0.00	0.20	5	0	4	3	0	3
MCYP4,3M2C5	1.8	0.3	1.9	0.90	0.63	1.17	22	4	25	14	3	16
24MPENTANE	3.0	0.5	2.9	1.55	1.26	1.81	39	9	39	24	5	25
BENZENE	11.5	3.7	8.7	5.91	9.13	5.43	137	58	108	85	36	67
CYHEXANE	0.6	0.0	0.5	0.31	0.00	0.29	8	0	6	5	0	4
2MC6+23MC5	6.8	1.1	6.2	3.47	2.83	3.86	88	20	84	55	12	52
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.0	0.4	1.8	1.02	0.94	1.12	26	7	25	16	4	15
224MPENTAN	13.5	2.5	11.4	6.94	6.30	7.09	176	44	154	109	27	96
NHEPTANE	1.6	0.2	1.2	0.80	0.47	0.73	20	3	16	13	2	10
MCYHEXANE	0.8	0.4	0.6	0.40	0.94	0.39	10	6	8	6	4	5
25MHEXANE	1.8	0.2	1.4	0.93	0.47	0.88	24	3	19	15	2	12
24MC6+233M	1.7	0.0	1.3	0.87	0.00	0.78	22	0	17	14	0	11
234MC5	4.5	0.6	3.2	2.29	1.57	2.00	58	11	44	36	7	27
TOLUENE	14.4	2.6	10.1	7.37	6.61	6.26	172	43	126	107	27	78
23MC6+4MC7	1.9	0.3	1.3	0.96	0.63	0.83	24	4	18	15	3	11

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10902
DATE RUN: 09 22 77
CAR: 1977 FORD LTD 49 STATE VIN: 7B63H157057 DRIVER: G S MYEK FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
34MHEXANE		1.6	0.3	1.2		0.84	0.63	0.73		21	4	16		13	3	10
3MHEPTANE		1.5	0.2	1.0		0.77	0.47	0.64		20	3	14		12	2	9
255MC6		2.1	0.3	1.4		1.05	0.63	0.88		27	4	19		17	3	12
N OCTANE		0.7	0.1	0.4		0.37	0.16	0.24		9	1	5		6	1	3
223MC6		0.4	0.1	0.2		0.19	0.16	0.10		5	1	2		3	1	1
ETCYHEXANE		0.5	0.1	0.2		0.25	0.31	0.15		6	2	3		4	1	2
ET BENZENE		2.1	0.4	0.9		1.05	0.94	0.59		25	6	12		15	4	7
M+PXYLENE		5.9	1.1	3.5		3.00	2.68	2.20		71	17	44		44	11	28
2+4MC8		0.8	0.2	0.6		0.43	0.47	0.34		11	3	7		7	2	5
O XYLENE		2.2	0.4	1.2		1.11	1.10	0.73		26	7	15		16	4	9
N NONANE		0.5	0.1	0.2		0.28	0.31	0.15		7	2	3		4	1	2
IPRBENZENE		0.4	0.1	0.2		0.22	0.16	0.10		5	1	2		3	1	1
NPRBENZENE		0.4	0.1	0.2		0.22	0.16	0.10		5	1	2		3	1	1
1M3ETBENZ		1.5	0.4	0.7		0.77	0.94	0.44		18	6	9		11	4	6
135MEBENZ		0.7	0.2	0.3		0.34	0.47	0.20		8	3	4		5	2	2
1M2ETBENZ		0.6	0.2	0.3		0.31	0.47	0.20		7	3	4		5	2	2
124MBENZ		1.9	0.8	0.9		0.96	2.05	0.59		23	13	12		14	8	7
SBUBENZENE		0.2	0.1	0.1		0.09	0.31	0.05		2	2	1		1	1	1
N DECANE		0.1	0.1	0.0		0.06	0.16	0.00		2	1	0		1	1	0
123MBENZ		0.4	0.4	0.2		0.22	0.94	0.10		5	6	2		3	4	1
INDANE		0.1	0.1	0.1		0.06	0.31	0.05		1	2	1		1	1	1
13EBENZENE		0.1	0.1	0.1		0.06	0.31	0.05		1	2	1		1	1	1
NBUBENZENE		0.3	0.3	0.1		0.15	0.79	0.05		4	5	1		2	3	1
1M3PRBENZ		0.4	0.4	0.1		0.22	0.94	0.05		5	6	1		3	4	1
UNKNOWNS		10.3	2.3	4.5		5.29	5.67	2.79		126	37	57		78	23	35

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10911
DATE RUN: 09 14 77 AIR CONDITIONER USED
CAR: 1977 FORD LTD 49 STATE VIN: 7D63H157057 DRIVER: G S MYER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	305.5	109.8	305.5
GC PPMC	279.1	94.2	276.9

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	21.1	8.9	16.7	7.55	9.48	6.03	306	213	246	190	132	153
SATURATES	104.5	35.3	114.4	37.46	37.43	41.32	1359	752	1512	844	467	940
OLEFINS	80.3	23.7	64.5	28.76	25.14	23.30	1019	494	833	633	307	517
ACETYLENE	1.9	0.1	1.0	0.68	0.13	0.35	22	2	11	14	1	7
NAPTHENES	5.2	1.7	5.8	1.86	1.78	2.11	66	35	75	41	22	47
AROMATICS	55.8	22.4	64.0	20.01	23.74	23.12	666	438	776	414	272	482
BENZENE	15.7	8.8	13.1	5.62	9.29	4.72	185	169	157	115	105	97
TOLUENE	20.0	7.6	15.3	7.16	8.02	5.53	239	148	185	149	92	115
C8+AROM	20.1	6.1	35.7	7.21	6.43	12.88	244	120	439	151	75	273
UNKNOWN	10.3	2.2	10.5	0.00	0.00	0.00	125	43	129	78	27	80
INDIVIDUAL COMPONENTS												
METHANE	21.1	8.9	16.7	7.55	9.48	6.03	306	213	246	190	132	153
ETHYLENE	23.3	7.0	18.0	8.36	7.38	6.49	296	145	232	184	90	144
ETHANE	3.3	1.4	2.4	1.18	1.46	0.86	45	31	33	28	19	21
ACETYLENE	1.9	0.1	1.0	0.68	0.13	0.35	22	2	11	14	1	7
C3 + C3=	22.8	7.1	14.9	8.18	7.57	5.37	290	149	192	180	92	119
C=C=C	0.5	0.0	0.0	0.18	0.00	0.00	6	0	0	4	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.9	0.7	2.9	0.68	0.70	1.04	25	14	38	16	9	24
B1 + IB	13.7	4.2	8.8	4.92	4.46	3.17	174	87	113	108	54	70
NC4 +B=1=3	8.9	3.4	9.8	3.17	3.56	3.55	116	72	131	72	45	82
TBUTENE-2	2.3	0.7	2.1	0.84	0.70	0.77	30	14	27	18	9	17
22MPRUPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.9	0.5	2.7	0.68	0.57	0.98	24	11	35	15	7	22
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.5	0.1	0.9	0.18	0.13	0.33	6	2	12	4	2	7
ISOPENTANE	11.3	4.6	17.8	4.03	4.84	6.43	147	98	236	91	61	147
PENTENE-1	0.4	0.1	0.6	0.16	0.06	0.21	6	1	8	3	1	5
2MBUT-1	1.3	0.2	1.3	0.45	0.25	0.46	16	5	16	10	3	10
NPENTANE	2.2	0.6	3.5	0.79	0.69	1.27	29	18	47	18	11	29
2MB=1=3	1.5	0.4	0.6	0.54	0.45	0.23	19	9	8	12	5	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10911
DATE RUN: 09 14 77 AIR CONDITIONER USED
CAR: 1977 FORD LTD 49 STATE VIN: 7D63H157057 DRIVER: G S MYER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.4	0.4	1.7	0.50	0.38	0.61	18	7	22	11	5	14
CISPENT-2	0.6	0.1	0.8	0.23	0.13	0.29	8	2	10	5	2	6
2MBUT-2	3.2	0.7	3.8	1.13	0.76	1.36	40	15	49	25	9	30
22MBUTANE	2.0	0.2	1.1	0.73	0.19	0.40	26	4	15	16	2	9
CYPENTENE	0.4	0.3	0.5	0.14	0.32	0.17	5	6	6	3	4	4
3MPENTENE	3.5	1.1	3.8	1.25	1.15	1.38	44	22	49	27	14	31
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	5.8	2.0	8.3	2.06	2.16	3.01	75	43	110	46	27	69
2MPENTANE	3.2	1.1	4.4	1.13	1.21	1.57	41	24	58	26	15	36
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
HEXENE-1	0.8	0.2	1.1	0.29	0.19	0.38	10	4	14	6	2	9
N HEXANE	1.8	0.7	2.3	0.63	0.70	0.84	23	14	31	14	9	19
TC6=3.=2	1.3	0.4	1.6	0.45	0.38	0.59	16	7	21	10	5	13
CC6=3	0.2	0.1	0.6	0.07	0.13	0.21	2	2	8	1	2	5
2MPENTENE2	0.6	0.1	0.8	0.20	0.13	0.29	7	2	10	4	2	6
MCYP43M2C5	2.5	0.8	3.1	0.91	0.89	1.13	32	17	40	20	11	25
24MPENTANE	4.4	1.4	5.0	1.56	1.53	1.80	57	31	66	35	19	41
BENZENE	15.7	8.8	13.1	5.62	9.29	4.72	185	169	157	115	105	97
CYHEXANE	0.8	0.4	0.9	0.29	0.38	0.33	10	7	12	6	5	7
2MC6+23MC5	9.8	3.3	10.4	3.51	3.50	3.74	127	70	136	79	44	85
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.8	1.0	3.0	1.02	1.02	1.09	37	20	40	23	13	25
224MPENTAN	19.1	6.5	18.6	6.84	6.87	6.72	247	137	244	153	85	152
NHEPTANE	2.3	0.6	2.3	0.84	0.64	0.84	30	13	31	19	8	19
MCYHEXANE	1.1	0.4	1.2	0.41	0.38	0.44	14	7	16	9	5	10
25MHEXANE	2.7	0.8	2.6	0.97	0.83	0.92	35	17	34	22	10	21
24MC6+233M	2.3	0.8	2.2	0.84	0.83	0.79	30	17	29	19	10	18
234MC5	7.8	2.0	6.4	2.81	2.10	2.32	101	42	84	63	26	52
TOLUENE	20.0	7.6	15.3	7.18	8.02	5.53	239	148	185	149	92	115
23MC6+4MC7	2.6	0.8	2.2	0.93	0.89	0.81	34	18	29	21	11	18

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10911
DATE RUN: 09 14 77 AIR CONDITIONER USED
CAR: 1977 FORD LTD 49 STATE VIN: 7H63H157057 DRIVER: G S HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.3	0.8	2.1	0.84	0.83	0.75	30	17	27	19	10	17
3MHEPTANE	2.1	0.7	1.8	0.75	0.70	0.65	27	14	24	17	9	15
255MC6	2.9	1.0	2.4	1.04	1.02	0.88	38	20	32	23	13	20
N OCTANE	0.9	0.2	0.9	0.32	0.25	0.31	11	5	11	7	3	7
223MC6	0.4	0.1	0.4	0.14	0.13	0.15	5	3	6	3	2	3
ETCYHEXANE	0.7	0.1	0.6	0.25	0.13	0.21	9	2	8	5	2	5
ET BENZENE	3.3	0.6	23.5	1.18	0.64	8.50	39	12	287	25	7	179
M+PXYLENE	7.6	2.3	5.5	2.72	2.48	2.00	91	46	67	57	29	42
2+4MC8	1.1	0.3	0.9	0.39	0.32	0.33	14	6	12	9	4	7
O XYLENE	2.7	0.8	2.0	0.95	0.89	0.73	32	17	25	20	10	15
N NONANE	0.6	0.2	0.6	0.23	0.19	0.21	8	4	8	5	2	5
IPRBENZENE	0.4	0.1	0.4	0.16	0.13	0.15	5	2	5	3	1	3
NPRBENZENE	0.4	0.1	0.3	0.16	0.06	0.12	5	1	4	3	1	2
1M3ETBENZ	1.7	0.5	1.1	0.61	0.51	0.40	21	10	14	13	6	9
135MEBENZ	0.7	0.2	0.5	0.25	0.25	0.17	8	5	6	5	3	4
1M2ETBENZ	0.6	0.2	0.4	0.20	0.25	0.15	7	5	5	4	3	3
124MBENZ	1.8	0.7	1.1	0.66	0.76	0.40	22	14	14	14	9	9
SBUBENZENE	0.1	0.1	0.1	0.05	0.06	0.04	2	1	1	1	1	1
N DECANE	0.1	0.1	0.1	0.02	0.06	0.02	1	1	1	1	1	0
123MBENZ	0.3	0.2	0.2	0.09	0.19	0.06	3	4	2	2	2	1
INDANE	0.1	0.1	0.1	0.02	0.06	0.02	1	1	1	0	1	0
1JEBENZENE	0.1	0.0	0.1	0.02	0.00	0.02	1	0	1	0	0	0
NBUBENZENE	0.2	0.1	0.2	0.07	0.06	0.06	2	1	2	1	1	1
1M3PRBENZ	0.2	0.1	0.2	0.07	0.06	0.06	2	1	2	1	1	1
UNKNOWNS	10.3	2.2	10.5	3.69	2.29	3.78	125	43	129	78	27	80

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10912
DATE RUN: 09 21 77 AIR CONDITIONER USED
CAR: 1977 FORD LTD 49 STATE VIN: 7H63H157057 DRIVER: HYEK - WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	282.7	60.0	253.2
GC PPMC	260.7	76.8	143.6

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	15.9	9.0	8.5	6.09	11.66	5.93	224	182	196	139	113	122
SATURATES	87.8	26.7	66.6	33.67	34.72	46.37	1107	484	1369	688	301	851
OLEFINS	62.3	18.7	33.4	23.90	24.38	23.25	767	332	671	477	207	417
ACETYLENE	1.7	0.1	0.3	0.64	0.18	0.21	19	2	6	12	1	4
NAPTHENES	4.4	1.6	3.3	1.70	2.03	2.28	55	28	66	34	17	41
AROMATICS	47.7	18.8	26.7	18.31	24.47	18.56	552	313	503	343	195	313
BENZENE	12.4	7.9	8.0	4.76	10.34	5.54	142	131	148	88	81	92
TOLUENE	18.0	6.2	10.4	6.90	8.04	7.22	208	103	196	129	64	122
C8+AROM	17.3	4.7	8.3	6.65	6.10	5.80	204	79	160	127	49	99
UNKNOWN	40.9	2.0	4.9	0.00	0.00	0.00	482	33	94	300	21	58
INDIVIDUAL COMPONENTS												
METHANE	15.9	9.0	8.5	6.09	11.66	5.93	224	182	196	139	113	122
ETHYLENE	17.4	6.2	8.8	6.69	8.13	6.10	215	111	176	134	69	109
ETHANE	2.8	1.4	1.2	1.06	1.86	0.86	36	27	27	23	17	17
ACETYLENE	1.7	0.1	0.3	0.64	0.18	0.21	19	2	6	12	1	4
C3 + C3=	17.8	5.6	8.0	6.81	7.33	5.54	219	100	160	136	62	99
C=C=C	0.3	0.0	0.0	0.12	0.00	0.00	4	0	0	2	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.2	0.4	0.9	0.48	0.53	0.60	16	7	18	10	5	11
B1 + IB	10.7	3.5	5.1	4.12	4.51	3.57	132	61	103	82	38	64
NC4 +B=1=3	6.7	2.4	5.2	2.59	3.09	3.61	86	44	108	54	27	67
TBUTENE-2	1.9	0.5	1.0	0.72	0.71	0.73	23	10	21	14	6	13
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.7	0.3	0.9	0.64	0.44	0.64	21	6	19	13	4	12
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.5	0.1	0.2	0.19	0.09	0.17	6	1	5	4	1	3
ISOPENTANE	9.6	3.2	10.1	3.67	4.15	7.05	121	58	209	75	36	130
PENTENE-1	0.3	0.2	0.2	0.12	0.27	0.17	4	4	5	2	2	3
2MBUT-1	1.1	0.0	0.7	0.43	0.00	0.52	14	0	15	9	0	9
NPENTANE	1.8	0.7	2.3	0.70	0.88	1.63	23	12	48	14	8	30
2MB=1=3	0.7	0.1	0.2	0.27	0.18	0.13	8	2	4	5	1	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10912
DATE RUN: 09 21 77 AIR CONDITIONER USED
CAR: 1977 FORD LTD 49 STATE VIN: 7B63H157057 DRIVER: HYEK - WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.0	0.2	0.9	0.39	0.27	0.64	13	4	19	8	2	12
CISPENT-2	0.5	0.1	0.4	0.19	0.09	0.30	6	1	9	4	1	5
2MBUT-2	2.4	0.5	2.1	0.91	0.62	1.46	29	8	42	18	5	26
22MBUTANE	0.4	0.1	0.2	0.14	0.09	0.13	5	1	4	3	1	2
CYPENTENE	0.5	0.1	0.2	0.19	0.18	0.17	6	2	5	4	1	3
3MPENTENE	2.9	0.7	2.7	1.12	0.88	1.89	36	12	55	22	7	34
CYPENTANE	0.0	0.3	0.0	0.00	0.35	0.00	0	5	0	0	3	0
23MBUTANE	5.0	1.7	4.7	1.91	2.21	3.27	63	31	96	39	19	60
2MPENTANE	2.8	0.9	2.6	1.06	1.15	1.80	35	16	53	22	10	33
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
HEXENE-1	0.6	0.2	0.4	0.25	0.27	0.26	8	4	7	5	2	5
N HEXANE	1.5	0.5	1.4	0.58	0.62	0.99	19	9	29	12	5	18
TC6=3,=2	1.1	0.2	0.8	0.41	0.27	0.56	13	4	16	8	2	10
CC6=3	0.3	0.1	0.2	0.12	0.09	0.13	4	1	4	2	1	2
2MPENTENE2	0.5	0.1	0.4	0.19	0.09	0.26	6	1	7	4	1	5
MCYP43M2C5	2.2	0.6	1.9	0.83	0.80	1.29	27	11	37	17	7	23
24MPENTANE	3.6	1.0	3.0	1.39	1.33	2.06	45	18	61	28	11	38
BENZENE	12.4	7.9	8.0	4.76	10.34	5.54	142	131	148	88	81	92
CYHEXANE	0.7	0.3	0.5	0.27	0.44	0.34	9	6	10	5	4	6
2MC6+23MC5	8.6	2.5	6.5	3.29	3.27	4.56	108	45	134	67	28	83
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.5	0.7	1.9	0.97	0.97	1.33	32	14	39	20	8	24
224MPENTAN	17.0	5.0	11.9	6.50	6.45	8.29	213	89	244	132	56	151
NHEPTANE	2.1	0.4	1.4	0.81	0.53	0.95	26	7	28	16	5	17
MCYHEXANE	1.0	0.3	0.7	0.37	0.35	0.47	12	5	14	7	3	8
25MHEXANE	2.3	0.6	1.5	0.89	0.80	1.07	29	11	32	18	7	20
24MC6+233M	2.1	0.6	1.4	0.81	0.80	0.95	26	11	28	16	7	17
234MCS	6.2	1.5	3.5	2.36	1.94	2.41	77	27	71	48	17	44
TOLUENE	18.0	6.2	10.4	6.90	8.04	7.22	208	103	196	129	64	122
23MC6+4MC7	2.4	0.7	1.4	0.91	0.88	0.99	30	12	29	19	8	18

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 10912
DATE RUN: 09 21 77 AIR CONDITIONER USED
CAR: 1977 FORD LTD 49 STATE VIN: 7H63H157057 DRIVER: HYEK - WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.1	0.6	1.3	0.81	0.80	0.90	26	11	26	16	7	16
3MHEPTANE	1.8	0.5	1.2	0.70	0.71	0.82	23	10	24	14	6	15
25DMC6	2.5	0.7	1.6	0.97	0.88	1.12	32	12	33	20	8	20
N OCTANE	0.8	0.2	0.5	0.31	0.27	0.34	10	4	10	6	2	6
223MC6	0.4	0.1	0.2	0.14	0.09	0.13	5	1	4	3	1	2
ETCYHEXANE	0.6	0.1	0.2	0.23	0.09	0.17	7	1	5	5	1	3
ET BENZENE	2.6	0.4	1.1	1.01	0.53	0.77	31	7	21	19	4	13
M+PXYLENE	7.1	1.9	3.6	2.71	2.47	2.49	82	32	68	51	20	42
24MC8	1.0	0.2	0.5	0.37	0.27	0.34	12	4	10	8	2	6
O XYLENE	2.4	0.7	1.2	0.93	0.97	0.86	28	13	23	18	8	15
N NONANE	0.5	0.1	0.2	0.21	0.18	0.17	7	2	5	4	2	3
IPRBENZENE	0.4	0.1	0.2	0.14	0.09	0.13	4	1	4	3	1	2
NPRBENZENE	0.3	0.1	0.1	0.10	0.09	0.09	3	1	2	2	1	1
1M3ETBENZ	1.3	0.4	0.7	0.50	0.53	0.47	15	7	13	9	4	8
135MEBENZ	0.5	0.2	0.3	0.21	0.27	0.21	6	3	6	4	2	4
1M2ETBENZ	0.4	0.2	0.3	0.17	0.27	0.21	5	3	6	3	2	4
124MBENZ	1.5	0.7	0.8	0.58	0.88	0.56	18	11	15	11	7	10
SBUBENZENE	0.2	0.0	0.0	0.06	0.00	0.00	2	0	0	1	0	0
N DECANE	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.3	0.0	0.0	0.10	0.00	0.00	3	0	0	2	0	0
INDANE	0.1	0.0	0.0	0.02	0.00	0.00	1	0	0	0	0	0
13EBENZENE	0.1	0.0	0.0	0.02	0.00	0.00	1	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0
UNKNOWNS	40.9	2.0	4.9	15.70	2.56	3.39	482	33	94	308	21	58

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 11101
DATE RUN: 09 15 77
CAR: 1977 FORD LTD 49 STATE VIN: 7B63H157057 DRIVER: FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	298.4	125.5	318.3
GC PPMC	270.1	104.7	286.1

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	19.4	9.8	21.8	7.18	9.40	7.62	284	237	319	177	147	198
SATURATES	104.2	39.9	124.9	38.59	38.07	43.66	1368	860	1636	850	534	1017
OLEFINS	73.2	28.2	74.5	27.11	26.91	26.06	939	593	953	583	369	593
ACETYLENE	2.6	0.2	1.1	0.98	0.18	0.39	31	4	13	20	2	8
NAPTHENES	5.3	1.8	5.9	1.96	1.76	2.06	68	39	75	42	24	47
AROMATICS	53.5	22.4	48.4	19.80	21.39	16.93	644	443	582	400	275	361
BENZENE	12.0	7.7	12.9	4.43	7.34	4.51	142	150	153	88	93	95
TOLUENE	18.7	8.2	18.0	6.92	7.81	6.28	225	162	216	140	101	134
C8+AROM	22.8	6.5	17.5	8.45	6.23	6.13	279	131	214	174	81	133
UNKNOWN	11.8	2.4	9.4	0.00	0.00	0.00	145	48	115	90	30	71
INDIVIDUAL COMPONENTS												
METHANE	19.4	9.8	21.8	7.18	9.40	7.62	284	237	319	177	147	198
ETHYLENE	19.2	8.9	24.2	7.10	8.52	8.45	246	188	309	153	117	192
ETHANE	3.1	1.5	3.2	1.13	1.47	1.12	42	35	44	26	22	27
ACETYLENE	2.6	0.2	1.1	0.98	0.18	0.39	31	4	13	20	2	8
C3 + C3=	20.7	8.2	17.1	7.65	7.87	5.98	265	174	219	165	108	136
C=C=C	0.7	0.0	0.0	0.27	0.00	0.00	9	0	0	5	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	2.3	0.9	2.4	0.85	0.88	0.83	30	20	32	19	13	20
B1 + IB	12.0	4.8	10.6	4.45	4.58	3.72	154	101	136	96	63	85
NC4 +B=1=3	7.9	3.8	11.0	2.91	3.64	3.83	105	83	145	65	52	90
TBUTENE-2	2.3	0.8	2.3	0.87	0.76	0.79	30	17	29	19	10	18
22MPRUPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	2.3	0.7	2.1	0.85	0.65	0.74	29	14	27	18	9	17
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.8	0.1	0.4	0.31	0.12	0.15	11	3	6	7	2	3
ISOPENTANE	10.4	5.2	19.3	3.85	4.99	6.74	137	113	254	85	70	158
PENTENE-1	0.5	0.1	0.4	0.20	0.06	0.15	7	1	6	4	1	3
2MBUT-1	1.3	0.2	1.4	0.47	0.24	0.48	16	5	18	10	3	11
NPENTANE	2.0	1.0	3.7	0.76	1.00	1.29	27	23	49	17	14	30
2MB=1=3	1.3	0.4	0.8	0.49	0.41	0.26	16	9	9	10	5	6

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 11101
DATE RUN: 09 15 77
CAR: 1977 FORD LTD 49 STATE VIN: 7B63H157057 DRIVEN: FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	1.4	0.4	1.8	0.53	0.41	0.63	18	9	23	11	6	14
CISPENT-2	0.7	0.1	0.8	0.24	0.12	0.28	8	3	10	5	2	6
2MBUT-2	3.0	1.1	4.3	1.11	1.06	1.51	39	23	55	24	14	34
22MBUTANL	2.6	0.1	1.0	0.98	0.06	0.35	35	1	13	22	1	8
CYPENTENE	0.5	0.1	0.4	0.18	0.12	0.15	6	3	5	4	2	3
3MPENTENE	3.2	1.2	4.1	1.18	1.12	1.45	41	25	53	25	15	33
CYPENTANL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	5.5	2.5	8.8	2.02	2.35	3.09	72	53	116	45	33	72
2MPENTANE	3.0	1.3	4.6	1.11	1.23	1.60	39	28	60	25	17	37
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
HEXENE-1	0.9	0.2	0.8	0.33	0.18	0.26	12	4	10	7	2	6
N HEXANE	1.7	0.7	2.4	0.65	0.71	0.83	23	16	31	14	10	19
TC6=3,=2	1.3	0.4	1.7	0.49	0.41	0.59	17	9	22	11	6	13
CC6=3	0.5	0.2	0.5	0.18	0.18	0.18	6	4	6	4	2	4
2MPENTENE2	0.6	0.1	0.8	0.22	0.12	0.26	8	3	10	5	2	6
MCYP43M2C5	2.4	0.9	3.3	0.89	0.88	1.14	31	19	42	19	12	26
24MPENTANE	4.3	1.7	5.4	1.58	1.59	1.88	56	36	70	35	22	44
BENZENE	12.0	7.7	12.9	4.43	7.34	4.51	142	150	153	88	93	95
CYHEXANE	0.8	0.3	0.8	0.29	0.29	0.28	10	6	10	6	4	6
2MC6+23MC5	9.7	3.6	11.4	3.60	3.47	3.99	127	78	149	79	48	92
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.8	1.0	3.3	1.05	1.00	1.14	37	22	43	23	14	26
224MPENTAN	19.0	7.2	21.0	7.05	6.87	7.34	249	154	273	154	96	170
NHEPTANE	2.5	0.7	2.6	0.93	0.71	0.90	33	16	34	21	10	21
MCYHEXANE	1.2	0.4	1.3	0.44	0.41	0.44	15	9	16	10	6	10
25MHEXANE	2.8	0.9	2.8	1.05	0.88	0.96	37	20	36	23	12	22
24MC6+233M	2.5	0.9	2.4	0.91	0.82	0.85	32	18	32	20	11	20
234MC5	8.5	2.2	7.0	3.16	2.06	2.45	111	46	91	69	29	57
TOLUENE	18.7	8.2	18.0	6.92	7.81	6.28	225	162	216	140	101	134
23MC6+4MC7	2.8	0.9	2.6	1.02	0.88	0.92	36	20	34	22	12	21

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 11101
DATE RUN: 09 15 77
CAR: 1977 FORD LTD 49 STATE VIN: 7H63H157057 DRIVER: FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.5	0.9	2.3	0.93	0.82	0.81	33	18	30	20	11	19
3MHEPTANE	2.3	0.7	2.1	0.85	0.71	0.72	30	16	27	19	10	17
255MC6	3.0	1.0	2.6	1.11	1.00	0.99	39	22	37	24	14	23
N OCTANE	0.4	0.3	0.9	0.16	0.29	0.33	5	7	12	3	4	8
223MC6	0.5	0.1	0.4	0.18	0.12	0.13	6	3	5	4	2	3
ETCYHEXANE	0.9	0.2	0.6	0.33	0.18	0.20	12	4	7	7	2	4
ET BENZENE	3.6	0.7	2.6	1.33	0.71	0.92	44	15	32	27	9	20
M+PXYLENE	8.6	2.8	6.7	3.18	2.70	2.34	104	56	81	65	35	50
244MC8	1.3	0.4	1.0	0.49	0.35	0.35	17	8	13	11	5	8
O XYLENE	3.1	1.0	2.4	1.16	0.94	0.83	38	20	29	24	12	18
N NONANE	0.7	0.2	0.6	0.27	0.18	0.20	9	4	7	6	2	5
IPRBENZENE	0.5	0.1	0.4	0.20	0.12	0.15	7	2	5	4	2	3
NPRBENZENE	0.5	0.1	0.3	0.18	0.06	0.11	6	1	4	4	1	2
1M3ETBENZ	2.0	0.5	1.5	0.73	0.47	0.53	24	10	18	15	6	11
135MEBENZ	0.8	0.2	0.6	0.29	0.24	0.22	10	5	8	6	3	5
1M2ETBENZ	0.7	0.2	0.6	0.24	0.24	0.20	8	5	7	5	3	4
124MBENZ	1.9	0.6	1.6	0.71	0.53	0.55	23	11	19	15	7	12
SBUBENZENE	0.1	0.0	0.1	0.04	0.00	0.04	1	0	2	1	0	1
N DECANE	0.0	0.0	0.1	0.00	0.00	0.02	0	0	1	0	0	1
123MBENZ	0.3	0.1	0.3	0.11	0.12	0.09	4	2	3	2	2	2
INDANE	0.1	0.0	0.1	0.04	0.00	0.02	1	0	1	1	0	0
13EBENZENE	0.1	0.0	0.1	0.04	0.00	0.02	1	0	1	1	0	0
NBUBENZENE	0.2	0.1	0.2	0.09	0.06	0.07	3	1	2	2	1	1
1M3PRBENZ	0.2	0.1	0.1	0.09	0.06	0.04	3	1	2	2	1	1
UNKNOWNS	11.8	2.4	9.4	4.38	2.29	3.28	145	48	115	90	30	71

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 11102
DATE RUN: 09 20 77
CAR: 1977 FORD LTD 49 STATE VIN: 7H63H157057 DRIVER: HYEK - WAND FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	264.6	101.9	325.8
GC PPMC	262.1	92.8	259.8

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	16.6	6.7	15.3	6.35	9.42	5.90	217	189	250	135	118	156
SATURATES	96.6	32.4	118.8	36.84	34.94	45.73	1129	628	1738	701	390	1080
OLEFINS	63.8	22.0	60.1	24.34	23.66	23.14	728	415	859	453	258	534
ACETYLENE	1.4	0.0	0.6	0.52	0.00	0.23	14	0	8	9	0	5
NAPTHENES	5.2	2.4	5.7	1.97	2.61	2.18	59	46	81	37	29	50
AROMATICS	52.6	23.2	49.2	20.08	24.97	18.94	564	412	660	351	256	410
BENZENE	1.2	7.9	12.5	0.47	8.53	4.81	13	139	166	8	86	103
TOLUENE	18.2	7.6	16.9	6.93	8.18	6.52	195	135	227	121	84	141
C8+AROM	33.2	7.7	19.8	12.68	8.25	7.61	362	138	270	225	86	168
UNKNOWN	25.9	4.1	10.1	0.00	0.00	0.00	283	74	138	176	46	86
INDIVIDUAL COMPONENTS												
METHANE	16.6	6.7	15.3	6.35	9.42	5.90	217	189	250	135	118	156
ETHYLENE	17.1	7.1	18.3	6.51	7.63	7.03	195	134	261	121	83	162
ETHANE	2.6	2.2	2.2	1.01	2.41	0.84	32	45	33	20	28	21
ACETYLENE	1.4	0.0	0.6	0.52	0.00	0.23	14	0	8	9	0	5
C3 + C3=	19.4	6.5	13.7	7.40	7.02	5.27	222	123	196	138	77	122
C=C=C	1.1	0.0	0.0	0.43	0.00	0.00	12	0	0	8	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.1	0.7	1.8	0.43	0.76	0.70	13	14	27	8	9	17
B1 + IB	10.7	3.5	8.6	4.08	3.78	3.30	122	66	122	76	41	76
NC4 +B=1=3	6.7	2.9	10.1	2.56	3.16	3.90	79	58	150	49	36	93
TBUTENE-2	1.9	0.6	1.9	0.74	0.62	0.72	22	11	27	14	7	17
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.4	0.4	1.7	0.54	0.48	0.67	16	8	25	10	5	16
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.4	0.1	0.4	0.13	0.07	0.14	4	1	5	3	1	3
ISOPENTANE	8.1	4.0	18.6	3.07	4.33	7.17	95	78	274	59	49	170
PENTENE-1	0.4	0.1	0.4	0.16	0.07	0.16	5	1	6	3	1	4
2MBUT-1	1.2	0.3	1.3	0.45	0.28	0.49	13	5	18	8	3	11
NPENTANE	1.6	0.8	3.6	0.61	0.89	1.39	19	16	53	12	10	33
2MB=1=3	1.2	0.1	0.1	0.45	0.14	0.05	13	2	2	8	1	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 11102
DATE RUN: 09 20 77
CAR: 1977 FORD LTD 49 STATE VIN: 7R63H157057 DRIVER: HYEK - WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.1	0.3	1.3	0.43	0.28	0.51	13	5	19	8	3	12
CISPENT-2	0.6	0.1	0.7	0.22	0.07	0.26	7	1	9	4	1	6
2MBUT-2	2.2	0.6	3.3	0.85	0.62	1.25	26	11	47	16	7	29
22MBUTANE	1.4	0.1	0.3	0.54	0.07	0.12	16	1	4	10	1	3
CYPENTENE	0.3	0.1	0.4	0.11	0.07	0.14	3	1	5	2	1	3
3MPENTENE	2.2	1.0	5.3	0.85	1.03	2.04	26	18	76	16	11	47
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	4.2	1.7	8.1	1.62	1.86	3.13	49	33	119	31	21	74
2MPENTANE	2.5	1.1	4.5	0.96	1.24	1.74	30	22	66	18	14	41
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
HEXENE-1	0.6	0.2	0.7	0.22	0.21	0.26	7	4	9	4	2	6
N HEXANE	1.5	0.6	2.4	0.56	0.69	0.93	17	12	35	11	8	22
TC6=3,=2	1.0	0.4	1.3	0.38	0.41	0.49	11	7	18	7	5	11
CC6=3	0.5	0.1	0.3	0.18	0.14	0.12	5	2	4	3	2	3
2MPENTENE2	0.5	0.7	0.7	0.20	0.76	0.26	6	13	9	4	8	6
MCYP4,3M2C5	1.9	1.3	3.2	0.74	1.38	1.23	22	24	46	14	15	28
24MPENTANE	3.6	0.0	5.1	1.37	0.00	1.97	42	0	75	26	0	46
BENZENE	1.2	7.9	12.5	0.47	8.53	4.81	13	139	166	8	86	103
CYHEXANE	0.7	0.3	0.8	0.27	0.28	0.30	8	5	11	5	3	7
2MC6+23MC5	8.0	2.9	11.3	3.05	3.16	4.36	93	57	165	58	35	103
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.4	1.0	3.2	0.92	1.03	1.23	28	18	47	17	11	29
224MPENTAN	16.0	6.2	21.0	6.10	6.67	8.10	186	119	306	116	74	190
MHEPTANE	2.5	1.0	2.2	0.94	1.03	0.86	29	18	33	18	11	20
MCYHEXANE	1.8	0.6	1.1	0.70	0.69	0.44	21	12	16	13	8	10
25MHEXANE	4.1	0.8	2.7	1.57	0.89	1.02	48	16	39	30	10	24
24MC6+233M	3.8	0.8	2.4	1.44	0.83	0.91	44	15	34	27	9	21
234MC5	8.6	1.8	6.8	3.30	1.93	2.62	100	34	99	62	21	62
TOLUENE	18.2	7.6	16.9	6.93	8.18	6.52	195	135	227	121	84	141
23MC6+4MC7	3.1	0.0	2.5	1.17	0.00	0.95	36	0	36	22	0	22

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 11102
DATE RUN: 09 20 77
CAR: 1977 FORD LTD 49 STATE VIN: 7H63H157057 DRIVER: HYEK - WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
3&MHEXANE	3.1	0.8	2.2	1.17	0.63	0.86	36	15	32	22	9	20
3MHEPTANE	3.3	0.6	2.0	1.26	0.69	0.77	38	12	29	24	8	18
255MC6	4.1	1.1	2.7	1.57	1.17	1.04	48	21	39	30	13	24
N OCTANE	1.1	0.3	0.8	0.43	0.34	0.32	13	6	12	8	4	8
223MC6	0.9	0.3	0.3	0.34	0.28	0.12	10	5	4	6	3	3
ETCYHEXANE	0.7	0.3	0.5	0.27	0.28	0.21	8	5	8	5	3	5
ET BENZENE	3.1	0.9	2.2	1.19	0.96	0.86	34	16	30	21	10	19
M+PXYLENE	7.4	2.7	6.9	2.80	2.89	2.65	79	48	93	49	30	58
24MC8	1.2	0.3	1.0	0.45	0.34	0.39	14	6	15	8	4	9
O XYLENE	5.8	1.1	2.5	2.20	1.17	0.97	62	19	34	39	12	21
N NONANE	0.9	0.2	0.6	0.34	0.21	0.23	10	4	9	6	2	5
IPRBENZENE	3.9	0.1	0.4	1.48	0.14	0.16	42	2	6	26	1	4
NPRBENZENE	1.5	0.1	0.4	0.58	0.14	0.16	17	2	6	10	1	4
1M3ETBENZ	2.4	0.5	1.9	0.90	0.55	0.74	26	9	26	16	6	16
135MEBENZ	1.1	0.3	0.8	0.43	0.34	0.32	12	6	11	8	4	7
1M2ETBENZ	0.9	0.2	0.8	0.36	0.21	0.30	10	3	11	6	2	7
124MBENZ	3.1	0.7	2.2	1.19	0.76	0.84	34	13	30	21	8	18
SBUBENZENE	0.6	0.2	0.2	0.22	0.21	0.09	6	3	3	4	2	2
N DECANE	0.2	0.1	0.1	0.09	0.14	0.05	3	2	2	2	2	1
123MBENZ	1.2	0.3	0.5	0.47	0.28	0.19	13	5	7	8	3	4
INDANE	0.3	0.1	0.2	0.11	0.07	0.07	3	1	2	2	1	2
13EBENZENE	0.2	0.1	0.1	0.09	0.07	0.02	3	1	1	2	1	1
NBUBENZENE	0.7	0.3	0.3	0.27	0.28	0.12	8	5	4	5	3	3
1M3PRBENZ	1.0	0.2	0.3	0.38	0.21	0.12	11	3	4	7	2	3
UNKNOWNS	25.9	4.1	10.1	9.89	4.40	3.88	283	74	138	176	46	86

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 11111
DATE RUN: 09 16 77 AIR CONDITIONER USED
CAR: 1977 FORD LTD 49 STATE VIN: 7B63M157057 DRIVER: G S HYEK FUEL: SUNNER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	295.5	191.6	562.0
GC PPMC	257.9	163.5	508.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	22.0	15.9	34.3	8.53	9.71	6.75	331	374	520	206	232	323
SATURATES	89.5	59.8	236.0	34.70	36.56	46.43	1205	1260	3206	749	783	1992
OLEFINS	73.9	45.2	115.5	28.65	27.65	22.72	971	930	1532	604	578	952
ACETYLENE	1.8	0.8	8.1	0.71	0.48	1.59	22	15	100	14	9	62
NAPTHENES	4.6	2.8	12.0	1.80	1.69	2.37	61	57	160	38	35	99
AROMATICS	57.1	34.2	79.6	22.13	20.92	15.66	705	661	992	438	411	616
BENZENE	14.8	9.5	16.7	5.73	5.80	3.29	180	181	206	112	113	128
TOLUENE	20.4	12.7	29.0	7.89	7.74	5.71	251	245	361	156	152	225
C8+AROM	21.9	12.1	33.8	8.51	7.38	6.66	275	237	429	171	147	266
UNKNOWN	8.9	4.9	22.8	0.00	0.00	0.00	112	96	289	70	60	180
INDIVIDUAL COMPONENTS												
METHANE	22.0	15.9	34.3	8.53	9.71	6.75	331	374	520	206	232	323
ETHYLENE	22.5	15.7	32.7	8.71	9.59	6.44	295	323	434	183	201	270
ETHANE	3.0	1.8	3.0	1.18	1.09	0.58	43	39	42	27	24	26
ACETYLENE	1.8	0.8	8.1	0.71	0.48	1.59	22	15	100	14	9	62
C3 + C3=	21.2	11.9	24.2	8.24	7.30	4.76	279	246	321	174	153	199
C=C=C	0.3	0.0	0.6	0.12	0.00	0.13	4	0	8	2	0	5
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.2	0.7	6.6	0.47	0.44	1.30	16	15	91	10	10	57
B1 + 1B	12.6	7.5	14.8	4.89	4.59	2.92	166	155	197	103	96	122
NC4 +B=1=3	6.7	5.0	20.8	2.61	3.06	4.08	92	107	285	57	66	177
TBUTENE-2	2.1	1.3	3.6	0.81	0.77	0.71	28	26	48	17	16	30
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.8	1.1	4.5	0.69	0.69	0.88	23	23	59	15	14	37
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.5	0.3	1.7	0.20	0.16	0.33	7	5	22	4	3	14
ISOPENTANE	9.8	7.0	32.5	3.79	4.27	6.39	132	148	444	82	92	276
PENTENE-1	0.3	0.1	1.3	0.12	0.08	0.25	4	3	17	3	2	11
2MBUT-1	1.1	0.5	2.6	0.44	0.32	0.50	15	11	34	9	7	21
NPENTANE	2.1	1.5	6.4	0.81	0.93	1.26	28	32	87	18	20	54
2MB=1=3	1.0	0.7	1.4	0.39	0.40	0.27	13	13	18	8	8	11

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 11111
DATE RUN: 09 16 77 AIR CONDITIONER USED
CAR: 1977 FORD LTD 49 STATE VIN: 7B63H157057 DRIVER: G S MYER FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	1.2	0.7	3.3	0.47	0.44	0.65	16	15	44	10	9	27
CISPENT-2	0.4	0.3	1.6	0.17	0.16	0.32	6	5	22	4	3	13
2MBUT-2	2.8	1.7	7.0	1.08	1.05	1.37	37	35	93	23	22	58
22MBUTANE	0.9	0.4	2.0	0.34	0.24	0.40	12	8	28	7	5	17
CYPENTENE	0.3	0.2	0.9	0.10	0.12	0.17	3	4	11	2	2	7
3MPENTENE	2.5	1.6	7.4	0.96	0.97	1.46	33	33	99	20	20	61
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	6.0	3.8	16.9	2.31	2.34	3.32	80	81	229	50	50	142
2MPENTANE	2.9	1.9	8.7	1.13	1.17	1.70	39	40	118	24	25	73
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
HEXENE-1	0.7	0.4	2.0	0.27	0.24	0.40	9	8	27	6	5	17
N HEXANE	1.7	1.1	4.7	0.66	0.64	0.93	23	22	64	14	14	40
TC6=3,=2	1.6	0.9	3.2	0.61	0.52	0.63	21	18	42	13	11	26
CC6=3	0.4	0.1	1.0	0.15	0.08	0.21	5	3	14	3	2	9
2MPENTENE2	0.6	0.3	1.6	0.22	0.16	0.31	8	5	21	5	3	13
MCYP43M2C5	2.2	1.3	6.2	0.86	0.81	1.21	29	27	82	18	17	51
24MPENTANE	3.9	2.5	10.2	1.52	1.53	2.00	53	53	138	33	33	86
BENZENE	14.8	9.5	16.7	5.73	5.80	3.29	180	181	206	112	113	128
CYHEXANE	0.7	0.5	1.9	0.27	0.28	0.37	9	9	25	6	6	15
2MC6+23MC5	9.2	5.6	22.0	3.57	3.43	4.32	123	118	298	77	73	185
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.8	1.7	6.4	1.08	1.05	1.26	37	36	87	23	22	54
224MPENTAN	12.9	11.2	39.4	5.02	6.85	7.76	173	235	532	108	146	331
NHEPTANE	2.3	1.3	5.1	0.89	0.81	1.01	31	28	69	19	17	43
MCYHEXANE	1.1	0.7	2.6	0.42	0.44	0.50	14	15	34	9	9	21
25MHEXANE	2.4	1.4	5.2	0.93	0.89	1.03	32	30	71	20	19	44
24MC6+233M	2.2	1.4	5.0	0.86	0.85	0.98	30	29	68	18	18	42
234MC5	6.7	3.7	15.3	2.61	2.26	3.01	90	77	207	56	48	128
TOLUENE	20.4	12.7	29.0	7.89	7.74	5.71	251	245	361	156	152	225
23MC6+4MC7	2.5	1.6	5.0	0.98	0.97	0.98	34	33	68	21	21	42

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 11111
DATE RUN: 09 16 77 AIR CONDITIONER USED
CAR: 1977 FORD LTD 49 STATE VIN: 7B63H157057 DRIVER: G S HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.3	1.4	4.5	0.89	0.85	0.89	31	29	61	19	18	38
3MHEPTANE	2.0	1.3	4.2	0.79	0.77	0.82	27	26	57	17	16	35
255MC6	2.7	1.7	5.3	1.03	1.05	1.05	36	36	72	22	22	45
N UCTANE	1.0	0.6	2.1	0.37	0.36	0.41	13	12	28	8	8	18
223MC6	0.4	0.2	1.8	0.15	0.12	0.21	5	4	14	3	3	9
ETCYHEXANE	0.6	0.3	1.3	0.25	0.16	0.29	8	5	19	5	3	12
ET BENZENE	3.1	1.6	4.6	1.21	0.97	0.90	39	31	58	24	19	36
M+PXYLENE	8.6	4.8	13.1	3.32	2.94	2.57	106	94	164	66	58	102
2+4MC8	1.1	0.7	2.2	0.44	0.40	0.43	15	14	30	9	9	19
O XYLENE	3.0	1.7	4.8	1.18	1.05	0.95	38	33	61	24	21	38
N NONANE	0.6	0.3	1.3	0.25	0.20	0.26	8	7	18	5	4	11
IPRBENZENE	0.4	0.3	1.0	0.17	0.16	0.21	6	5	13	3	3	8
NPRBENZENE	0.4	0.2	0.8	0.15	0.12	0.16	5	4	10	3	2	6
1M3ETBENZ	1.8	1.0	2.9	0.69	0.60	0.57	22	19	37	14	12	23
135MEBENZ	0.8	0.5	1.2	0.30	0.28	0.23	10	9	15	6	6	9
1M2ETBENZ	0.6	0.4	1.2	0.25	0.24	0.24	8	8	15	5	5	10
124MBENZ	2.1	1.1	2.8	0.81	0.69	0.56	26	22	36	16	14	22
SBUBENZENE	0.1	0.1	0.2	0.05	0.04	0.05	2	1	3	1	1	2
N DECANE	0.1	0.0	0.1	0.02	0.00	0.02	1	0	2	1	0	1
123MBENZ	0.3	0.2	0.4	0.12	0.12	0.08	4	4	5	2	2	3
INDANE	0.1	0.0	0.1	0.02	0.00	0.02	1	0	1	0	0	1
13EBENZENE	0.1	0.0	0.1	0.05	0.00	0.01	2	0	1	1	0	0
NBUBENZENE	0.3	0.1	0.3	0.10	0.08	0.06	3	3	4	2	2	2
1M3PRBENZ	0.3	0.1	0.2	0.10	0.08	0.05	3	3	3	2	2	2
UNKNOWNS	8.9	4.9	22.8	3.47	2.98	4.48	112	96	289	70	60	180

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 11112
DATE RUN: 09 19 77 AIR CONDITIONER USED
CAR: 1977 FORD LTD 49 STATE VIN: 7D63H157057 DRIVER: G S MYEK FUEL: SUNNER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	344.3	196.4	445.5
GC PPMC	304.2	172.9	408.5

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	21.8	16.2	33.3	7.16	9.37	8.15	328	367	480	204	228	298
SATURATES	115.2	62.9	166.6	37.86	36.36	40.79	1555	1275	2151	966	792	1337
OLEFINS	80.7	45.4	107.8	26.52	26.28	26.39	1064	900	1359	661	560	845
ACETYLENE	3.5	0.6	3.6	1.16	0.33	0.88	43	11	42	27	7	26
NAPTHENES	5.8	3.0	8.6	1.92	1.71	2.11	77	59	109	48	36	68
AROMATICS	63.5	38.6	71.3	20.87	22.34	17.46	786	719	844	489	447	525
BENZENE	15.5	10.7	17.2	5.08	6.17	4.21	189	196	201	118	122	125
TOLUENE	22.5	13.5	24.9	7.41	7.81	6.10	279	251	295	173	156	183
C8+AROM	25.5	14.5	29.2	8.38	8.36	7.16	321	273	352	200	170	219
UNKNOWN	13.7	6.2	17.2	0.00	0.00	0.00	173	118	207	108	73	129
INDIVIDUAL COMPONENTS												
METHANE	21.8	16.2	33.3	7.16	9.37	8.15	328	367	480	204	228	298
ETHYLENE	22.5	15.2	35.2	7.38	8.81	8.61	296	302	443	184	188	275
ETHANE	3.2	1.8	3.5	1.04	1.04	0.87	45	38	48	28	24	30
ACETYLENE	3.0	0.6	3.6	0.98	0.33	0.88	36	11	42	23	7	26
C3 + C3=	24.2	12.4	23.9	7.96	7.17	5.85	319	246	301	198	153	187
C=C=C	0.6	0.0	0.6	0.20	0.00	0.15	8	0	7	5	0	4
METHACETYL	0.6	0.0	0.0	0.18	0.00	0.00	7	0	0	4	0	0
ISOBUTANE	1.4	0.6	3.2	0.47	0.45	0.78	19	16	41	12	10	26
B1 + 1B	14.1	7.6	14.3	4.65	4.42	3.49	187	152	180	116	94	112
NC4 +B=1=3	8.4	5.1	11.6	2.77	2.94	2.84	115	104	152	72	65	94
TBUTENE-2	2.3	1.2	3.2	0.75	0.71	0.78	30	24	40	19	15	25
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	2.0	1.0	3.7	0.65	0.56	0.91	26	19	47	16	12	29
B=1=2	0.1	0.0	0.0	0.02	0.00	0.00	1	0	0	0	0	0
3MB1	0.6	0.3	1.3	0.18	0.15	0.31	7	5	16	5	3	10
ISOPENTANE	9.7	6.9	20.5	3.18	4.01	5.03	131	141	266	82	88	166
PENTENE-1	0.4	0.2	0.9	0.14	0.11	0.22	6	4	11	4	2	7
2MBUT-1	1.4	0.6	2.0	0.47	0.37	0.48	19	13	25	12	8	15
NPENTANE	1.9	1.3	4.1	0.63	0.78	1.01	26	28	54	16	17	33
2MB=1=3	1.7	0.8	1.3	0.57	0.48	0.32	22	16	16	14	10	10

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 11112
DATE RUN: 09 19 77 AIR CONDITIONER USED
CAR: 1977 FORD LTD 49 STATE VIN: 7H63H157057 DRIVER: G S MYER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.2	0.7	2.5	0.41	0.41	0.60	16	14	31	10	9	19
C1SPENT-2	0.6	0.3	1.2	0.18	0.15	0.29	7	5	15	5	3	9
2MBUT-2	2.7	1.7	5.3	0.88	0.97	1.30	35	33	67	22	21	42
22MBUTANE	2.2	0.6	1.7	0.71	0.33	0.41	29	12	22	18	7	13
CYPENTENE	0.4	0.2	1.1	0.14	0.11	0.26	6	4	13	3	2	8
3MPENTENE	2.9	1.7	5.3	0.96	0.97	1.29	38	33	66	24	21	41
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	5.4	3.9	11.9	1.77	2.23	2.92	73	78	154	45	49	96
2MPENTANE	3.2	1.9	6.0	1.04	1.12	1.48	43	39	78	27	24	49
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
HEXENE-1	0.7	0.4	1.7	0.22	0.22	0.43	9	8	22	6	5	14
N HEXANE	1.9	1.1	3.5	0.61	0.63	0.85	25	22	45	16	14	28
TC6=3,=2	1.2	0.6	2.5	0.39	0.37	0.60	16	13	31	10	8	19
CC6=3	0.4	0.3	0.8	0.14	0.15	0.21	6	5	11	4	3	7
2MPENTENE2	0.6	0.3	1.2	0.20	0.15	0.29	8	5	15	5	3	9
MCYP43M2C5	2.5	1.4	4.4	0.84	0.82	1.09	34	28	56	21	17	35
24MPENTANE	4.8	2.7	7.4	1.57	1.56	1.82	64	55	96	40	34	59
BENZENE	15.5	10.7	17.2	5.08	6.17	4.21	189	196	201	118	122	125
CYHLXANE	0.9	0.5	1.3	0.29	0.30	0.31	11	10	16	7	6	10
2MC6+23MC5	11.4	6.1	16.1	3.73	3.53	3.94	153	123	207	95	77	129
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.4	1.9	4.8	1.12	1.12	1.17	46	39	62	29	24	38
224MPENTAN	22.9	12.4	29.5	7.53	7.17	7.21	307	250	378	191	155	235
NHEPTANE	2.9	1.4	3.8	0.96	0.82	0.94	39	29	49	24	18	31
MCYHEXANE	1.4	0.7	1.9	0.47	0.41	0.45	19	14	23	12	9	15
25MHEXANE	3.4	1.6	4.1	1.10	0.93	1.01	45	32	53	28	20	33
24MC6+233M	2.9	1.4	3.5	0.94	0.82	0.87	38	29	45	24	18	28
234MC5	10.7	4.2	12.2	3.51	2.42	2.98	143	84	156	89	52	97
TOLUENE	22.5	13.5	24.9	7.41	7.81	6.10	279	251	295	173	156	183
23MC6+4MC7	3.2	1.6	3.8	1.04	0.93	0.94	42	32	49	26	20	31

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 11112
DATE RUN: 09 19 77 AIR CONDITIONER USED
CAR: 1977 FORD LTD 49 STATE VIN: 7B63H157057 DRIVER: G S HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.8	1.4	3.4	0.92	0.82	0.84	37	29	44	23	18	27
3MHEPTANE	2.6	1.3	3.1	0.86	0.74	0.76	35	26	40	22	16	25
255MC6	3.4	1.7	4.0	1.12	1.00	0.97	46	35	51	28	22	31
N OCTANE	1.1	0.5	1.4	0.35	0.30	0.35	14	10	18	9	6	11
223MC6	0.6	0.2	0.7	0.18	0.11	0.18	7	4	9	5	2	6
ETCYHEXANE	1.0	0.3	1.1	0.33	0.19	0.26	13	6	14	8	4	8
ET BENZENE	4.1	1.9	4.4	1.35	1.08	1.09	51	35	53	32	22	33
M+PXYLENE	9.9	5.2	10.5	3.24	3.01	2.57	123	98	125	77	61	78
2+4MC8	1.4	0.6	1.6	0.45	0.37	0.38	18	13	20	11	8	12
O XYLENE	3.4	1.8	3.7	1.10	1.04	0.91	42	34	44	26	21	28
N NONANE	0.7	0.3	0.9	0.22	0.19	0.22	9	6	12	6	4	7
IPRBENZENE	0.5	0.3	0.7	0.16	0.15	0.16	6	5	8	4	3	5
NPRBENZENE	0.6	0.3	0.7	0.18	0.15	0.16	7	5	9	4	3	5
1M3ETBENZ	2.1	1.2	2.6	0.69	0.67	0.63	26	22	31	16	14	19
135MEBENZ	0.9	0.5	1.1	0.29	0.30	0.26	11	10	13	7	6	8
1M2ETBENZ	0.7	0.4	1.0	0.24	0.26	0.23	9	8	12	6	5	7
124MBENZ	2.4	1.7	3.0	0.78	1.00	0.73	30	33	36	18	20	22
SBUBENZENE	0.2	0.1	0.2	0.06	0.07	0.06	2	2	3	1	2	2
N DECANE	0.1	0.0	0.1	0.02	0.00	0.03	1	0	2	1	0	1
123MBENZ	0.3	0.3	0.5	0.10	0.19	0.12	4	6	6	2	4	4
INDANE	0.1	0.1	0.1	0.02	0.07	0.03	1	2	1	0	1	1
13EBENZENE	0.1	0.1	0.1	0.02	0.04	0.01	1	1	1	0	1	0
NBUBENZENE	0.2	0.3	0.4	0.08	0.15	0.09	3	5	4	2	3	3
1M3PRBENZ	0.2	0.3	0.4	0.06	0.19	0.09	2	6	4	1	4	3
UNKNOWNS	13.7	6.2	17.2	4.51	3.61	4.21	173	118	207	108	73	129

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20001
DATE RUN: 11 28 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: L J WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 0

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	1764.4	147.0	225.0
GC PPMC	1630.0	163.8	192.9

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	137.4	8.9	9.9	8.43	5.44	5.15	2021	165	157	1256	102	97
SATURATES	665.9	38.3	74.5	40.85	23.38	38.64	8769	635	1052	5450	395	654
OLEFINS	328.5	37.4	50.7	20.16	22.86	26.29	4225	606	699	2626	377	435
ACETYLENE	199.4	10.8	12.8	12.24	6.59	6.61	2380	162	163	1479	101	101
NAPTHENES	33.6	2.0	3.4	2.06	1.20	1.78	432	32	47	269	20	29
AROMATICS	188.8	51.3	32.1	11.58	31.29	16.63	2280	780	415	1417	485	258
BENZENE	38.2	6.0	6.1	2.34	3.68	3.18	456	91	78	283	56	49
TOLUENE	62.1	11.7	9.3	3.81	7.15	4.80	749	178	120	466	111	74
C8+AROM	88.5	33.5	16.7	5.43	20.46	8.65	1087	518	220	675	322	137
UNKNOWN	76.3	15.1	9.4	0.00	0.00	0.00	939	234	125	583	146	77
INDIVIDUAL COMPONENTS												
METHANE	137.4	8.9	9.9	8.43	5.44	5.15	2021	165	157	1256	102	97
ETHYLENE	76.8	12.6	14.8	4.71	7.71	7.68	988	205	204	614	127	127
ETHANE	8.5	1.7	2.5	0.52	1.04	1.30	118	30	37	73	18	23
ACETYLENE	190.5	10.4	12.8	11.68	6.35	6.61	2273	156	163	1413	97	101
C3 + C3=	88.1	11.3	15.1	5.40	6.91	7.81	1133	183	208	704	114	129
C=C=C	3.5	0.6	0.8	0.22	0.36	0.42	43	9	11	27	6	7
METHACETYL	9.0	0.4	0.0	0.55	0.24	0.00	110	6	0	68	4	0
ISOBUTANE	15.9	1.0	2.8	0.98	0.60	1.43	212	16	39	132	10	24
B1 + IB	48.3	7.4	8.2	2.97	4.52	4.25	622	120	113	386	74	70
NC4 +B=1=3	84.0	4.6	10.8	5.16	2.80	5.61	1120	77	155	696	48	96
TBUTENE-2	12.6	0.9	1.5	0.78	0.52	0.78	163	14	21	101	9	13
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	10.6	0.6	1.1	0.65	0.36	0.58	137	10	16	85	6	10
B=1=2	0.6	0.0	0.0	0.03	0.00	0.00	7	0	0	4	0	0
3MB1	3.0	0.2	0.4	0.19	0.12	0.19	39	3	5	24	2	3
ISOPENTANE	100.5	4.0	12.2	6.17	2.44	6.32	1330	67	173	827	41	108
PENTENE-1	4.4	0.1	0.4	0.27	0.08	0.19	57	2	5	35	1	3
2MBUT-1	10.7	0.5	1.2	0.66	0.32	0.62	138	8	16	86	5	10
NPENTANE	14.0	0.7	1.7	0.86	0.40	0.88	185	11	24	115	7	15
2MB=1=3	2.3	0.2	0.0	0.14	0.12	0.00	29	3	0	18	2	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20001
DATE RUN: 11 28 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	11.2	0.5	1.1	0.69	0.28	0.55	145	7	15	90	5	9
CISPENT-2	6.1	0.2	0.6	0.37	0.12	0.29	78	3	8	48	2	5
2MBUT-2	20.3	0.9	2.3	1.24	0.56	1.20	261	15	32	162	9	20
22MBUTANE	0.3	0.0	0.0	0.02	0.00	0.00	4	0	0	3	0	0
CYPENTENE	3.4	0.1	0.3	0.21	0.08	0.16	43	2	4	27	1	3
3MPENTENE	2.3	0.1	0.2	0.14	0.04	0.10	30	1	3	19	1	2
CYPENTANE	2.5	0.1	0.2	0.15	0.04	0.10	32	1	3	20	1	2
23MBUTANE	16.9	0.5	1.5	1.04	0.32	0.78	223	9	21	139	5	13
2MPENTANE	36.2	1.8	3.7	2.22	1.12	1.91	477	30	52	296	19	32
3MPENTANE	20.4	0.8	2.1	1.25	0.48	1.07	269	13	29	167	8	18
HEXENE-1	5.4	0.2	0.5	0.33	0.12	0.26	70	3	7	43	2	4
N HEXANE	9.6	0.4	1.0	0.59	0.24	0.52	126	7	14	79	4	9
TC6=3,=2	10.1	0.5	1.3	0.62	0.32	0.65	130	8	17	81	5	11
CC6=3	3.1	0.3	0.4	0.19	0.16	0.23	40	4	6	25	3	4
2MPENTENE2	5.4	0.3	0.6	0.33	0.16	0.32	69	4	9	43	3	5
MCYP43M2C5	16.4	0.8	1.8	1.00	0.48	0.94	210	13	25	131	8	16
24MPENTANE	27.0	1.2	2.9	1.66	0.72	1.49	355	19	40	221	12	25
BENZENE	38.2	6.0	6.1	2.34	3.68	3.18	456	91	78	283	56	49
CYHEXANE	3.7	0.2	0.4	0.22	0.12	0.19	47	3	5	29	2	3
2MC6+23MC5	75.0	3.3	7.4	4.60	2.04	3.86	984	55	105	612	34	65
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	15.9	0.8	1.6	0.97	0.48	0.81	208	13	22	129	8	14
224MPENTAN	107.4	6.0	11.8	6.59	3.68	6.09	1406	99	165	874	62	103
NHEPTANE	12.2	0.7	1.3	0.75	0.40	0.68	160	11	18	99	7	11
MCYHEXANE	8.0	0.5	0.8	0.49	0.28	0.42	103	7	11	64	5	7
25MHEXANE	9.2	0.7	0.9	0.56	0.44	0.45	120	12	12	75	7	8
24MC6+233M	10.7	0.7	1.1	0.66	0.44	0.58	140	12	16	87	7	10
234MC5	39.4	2.6	3.3	2.42	1.56	1.72	516	42	47	321	26	29
TOLUENE	62.1	11.7	9.3	3.81	7.15	4.80	749	178	120	466	111	74
23MC6+4MC7	12.1	1.0	1.3	0.74	0.64	0.65	158	17	18	98	11	11

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20001
DATE RUN: 11 28 77
CAR: 1972 CHEVROLLT IMPALA VIN: 1MC9H2J273821 DRIVER: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	10.7	0.9	1.1	0.66	0.56	0.55	140	15	15	87	9	9
3MHEPTANE	11.0	0.9	1.1	0.67	0.56	0.55	144	15	15	89	9	9
255MC6	12.1	1.1	1.1	0.74	0.68	0.58	159	18	16	99	11	10
N OCTANE	4.7	0.6	0.4	0.29	0.36	0.23	62	10	6	39	6	4
223MC6	1.9	0.2	0.1	0.12	0.12	0.06	25	3	2	15	2	1
ETCYHEXANE	3.1	0.5	0.3	0.19	0.28	0.13	40	7	3	25	5	2
ET BENZENE	10.3	2.6	1.4	0.63	1.60	0.71	125	40	18	78	25	11
M+PXYLENE	32.9	10.9	5.9	2.02	6.63	3.08	401	167	77	249	103	48
2+4MC8	5.1	1.1	0.6	0.31	0.68	0.29	67	18	8	42	11	5
O XYLENE	12.4	4.1	2.0	0.76	2.48	1.04	151	62	26	94	39	16
N NONANE	4.7	0.8	0.3	0.29	0.48	0.16	61	13	4	38	8	3
IPRBENZENE	3.3	0.9	0.4	0.20	0.56	0.23	40	14	6	25	9	4
NPRBENZENE	1.6	0.9	0.4	0.10	0.56	0.19	19	14	5	12	9	3
1M3ETBENZ	6.8	3.5	1.6	0.42	2.12	0.84	84	53	21	52	33	13
135MEBENZ	2.7	1.4	0.4	0.16	0.88	0.23	32	22	6	20	14	4
1M2ETBENZ	4.2	1.5	0.6	0.26	0.92	0.29	51	23	7	32	14	5
124MBENZ	6.7	3.4	1.9	0.41	2.08	1.00	82	52	25	51	33	16
SBUBENZENE	4.5	2.7	0.9	0.28	1.64	0.49	56	42	12	35	26	8
N DECANE	0.3	0.2	0.1	0.02	0.12	0.06	4	3	2	3	2	1
123MBENZ	1.0	0.5	0.3	0.06	0.32	0.16	12	8	4	8	5	3
INDANE	0.6	0.3	0.1	0.03	0.20	0.06	7	5	2	4	3	1
13EBENZENE	0.4	0.3	0.1	0.03	0.16	0.03	5	4	1	3	3	1
NBUBENZENE	0.3	0.1	0.2	0.02	0.08	0.10	3	2	2	2	1	2
1M3PRBENZ	0.9	0.4	0.4	0.05	0.24	0.19	11	6	5	7	4	3
UNKNOWNS	76.3	15.1	9.4	4.68	9.23	4.89	939	234	125	583	146	77

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20003
DATE RUN: 12 01 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9M2J273821 DRIVER: L J WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 0

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	1714.0	139.2	187.8
GC PPMC	1509.0	498.1	203.3

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
MAJOR COMPONENTS												
METHANE	140.6	8.4	6.8	9.31	1.68	3.34	2150	48	84	1336	30	52
SATURATES	584.6	230.2	96.7	38.74	46.22	47.59	8005	1179	1074	4975	733	667
OLEFINS	302.8	43.9	33.4	20.07	8.80	16.43	4050	219	362	2517	136	225
ACETYLENE	214.1	9.9	8.7	14.19	1.98	4.29	2657	46	88	1652	28	54
NAPTHENES	29.2	15.2	2.2	1.93	3.05	1.07	390	76	24	243	47	15
AROMATICS	172.8	135.7	40.2	11.45	27.25	19.76	2171	638	409	1349	396	254
BENZENE	39.2	9.4	5.0	2.60	1.89	2.44	487	44	50	302	27	31
TOLUENE	53.5	36.8	7.7	3.55	7.39	3.79	672	173	78	418	107	49
C8+AROM	80.1	89.6	27.5	5.31	17.98	13.52	1022	428	284	635	266	177
UNKNOWN	65.0	54.9	15.3	0.00	0.00	0.00	832	263	159	517	163	99
INDIVIDUAL COMPONENTS												
METHANE	140.6	8.4	6.8	9.31	1.68	3.34	2150	48	84	1336	30	52
ETHYLENE	77.9	11.5	10.1	5.16	2.31	4.99	1042	57	110	647	36	68
ETHANE	9.1	1.8	1.5	0.60	0.36	0.75	130	10	18	81	6	11
ACETYLENE	210.5	9.9	8.7	13.95	1.98	4.29	2613	46	88	1624	28	54
C3 + C3=	86.1	10.3	10.9	5.70	2.06	5.36	1151	52	118	715	32	73
C=C=C	4.0	0.5	0.6	0.26	0.11	0.30	51	3	6	32	2	4
METHACETYL	3.5	0.0	0.0	0.23	0.00	0.00	45	0	0	28	0	0
ISOBUTANE	16.0	1.2	1.6	1.06	0.24	0.77	222	6	18	138	4	11
B1 + IB	45.4	7.1	5.7	3.01	1.42	2.81	607	35	62	377	22	38
NC4 +B=1=3	64.9	5.6	4.7	4.30	1.12	2.29	899	29	52	559	18	33
TBUTENE-2	9.3	1.0	0.8	0.61	0.19	0.41	124	5	9	77	3	6
22MPROPANE	0.7	0.0	0.0	0.05	0.00	0.00	10	0	0	6	0	0
CBUTENE-2	9.7	0.7	0.6	0.64	0.13	0.30	130	3	7	81	2	4
B=1=2	0.3	0.0	0.0	0.02	0.00	0.00	4	0	0	3	0	0
3MB1	2.5	0.2	0.2	0.17	0.05	0.09	34	1	2	21	1	1
ISOPENTANE	81.8	8.9	5.2	5.42	1.79	2.57	1126	46	58	700	29	36
PENTENE-1	3.5	0.3	0.2	0.23	0.06	0.09	46	1	2	29	1	1
2MBUT-1	8.6	1.0	0.6	0.57	0.20	0.30	115	5	7	72	3	4
NPENTANE	11.8	1.6	0.8	0.78	0.32	0.39	162	8	9	101	5	5
2MB=1=3	0.3	0.2	0.0	0.02	0.04	0.00	3	1	0	2	1	0

EFFECT OF AMBIENT TEMPLRATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20003
DATE RUN: 12 01 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	3.6	1.1	0.5	0.57	0.22	0.24	115	5	5	72	3	3
CISPENT-2	4.6	0.5	0.3	0.31	0.11	0.13	62	3	3	38	2	2
2MBUT-2	16.2	2.5	1.1	1.07	0.49	0.54	217	12	12	135	8	7
22MBUTANE	0.4	0.0	0.0	0.03	0.00	0.00	5	0	0	3	0	0
CYPENTENE	2.2	0.5	0.2	0.15	0.10	0.09	29	2	2	18	1	1
3MPENTENE	1.6	0.2	0.1	0.11	0.05	0.04	21	1	1	13	1	1
CYPENTANE	1.6	0.4	0.1	0.11	0.07	0.04	21	2	1	13	1	1
23MBUTANE	11.8	2.9	0.7	0.78	0.59	0.36	162	15	8	101	9	5
2MPENTANE	37.7	6.8	1.9	2.50	1.37	0.94	516	35	21	321	22	13
3MPENTANE	18.5	5.0	1.2	1.23	1.00	0.60	253	25	14	158	16	8
HEXENE-1	5.4	1.2	0.4	0.36	0.24	0.21	72	6	5	45	4	3
N HEXANE	8.7	2.5	0.5	0.57	0.49	0.26	119	13	6	74	8	4
TC6=3,=2	9.3	2.8	0.6	0.61	0.55	0.30	124	14	7	77	9	4
CC6=3	2.9	0.8	0.2	0.19	0.17	0.11	39	4	2	24	3	1
2MPENTENE2	4.6	1.5	0.3	0.30	0.30	0.15	61	7	3	38	5	2
MCYP43M2C5	14.9	5.7	1.0	0.99	1.15	0.49	199	29	11	124	18	7
24MPENTANE	24.5	8.9	1.6	1.62	1.78	0.77	334	45	17	208	28	11
BENZENE	39.2	9.4	5.0	2.60	1.89	2.44	487	44	50	302	27	31
CYHEXANE	2.9	1.4	0.2	0.19	0.28	0.11	39	7	2	24	4	1
2MC6+23MC5	67.6	33.4	4.6	4.48	6.70	2.25	923	170	51	574	106	31
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	14.3	6.7	1.0	0.95	1.35	0.47	196	34	11	122	21	7
224MPENTAN	103.0	55.8	7.7	6.83	11.04	3.79	1403	280	85	872	174	53
NHEPTANE	10.9	6.3	0.8	0.72	1.27	0.39	149	32	9	93	20	5
MCYHEXANE	7.4	5.3	0.6	0.49	1.06	0.30	99	26	7	61	16	4
25MHEXANE	7.8	5.1	54.0	0.52	1.03	26.57	107	26	596	66	16	370
24MC6+233M	9.1	6.5	0.8	0.60	1.31	0.39	124	33	9	77	21	5
234MC5	33.7	25.7	2.6	2.24	5.16	1.29	459	131	29	285	81	18
TOLUENE	53.5	36.8	7.7	3.55	7.39	3.79	672	173	78	418	107	49
23MC6+4MC7	10.4	8.3	1.0	0.69	1.67	0.47	142	42	11	88	26	7

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20003
DATE RUN: 12 01 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	8.9	7.2	0.8	0.59	1.44	0.41	122	37	9	76	23	6
3MHEPTANE	9.3	7.8	0.8	0.62	1.56	0.41	127	40	9	79	25	6
255MC6	10.1	8.3	0.9	0.67	1.67	0.43	137	42	10	85	26	6
N OCTANE	3.6	3.6	0.3	0.24	0.73	0.17	49	19	4	30	12	2
223MC6	1.4	1.4	0.1	0.09	0.28	0.06	19	7	1	12	4	1
ETCYHEXANE	2.4	2.5	0.3	0.16	0.49	0.13	32	12	3	20	8	2
ET BENZENE	8.9	8.0	1.6	0.59	1.61	0.77	113	38	16	70	24	10
M+PXYLENE	29.4	28.1	6.6	1.95	5.64	3.24	372	133	67	231	83	42
2+4MC8	4.2	4.7	0.7	0.28	0.94	0.36	57	24	8	35	15	5
O XYLENE	11.1	11.4	2.6	0.73	2.29	1.26	140	54	26	87	34	16
N NONANE	4.0	4.7	0.7	0.26	0.94	0.34	54	24	8	34	15	5
IPRBENZENE	2.8	3.5	0.6	0.18	0.70	0.30	35	17	6	22	10	4
NPRBENZENE	1.5	1.8	0.6	0.10	0.36	0.28	20	9	6	12	5	4
1M3ETBENZ	7.9	8.9	3.4	0.52	1.79	1.65	101	42	35	63	26	22
135MEBENZ	3.2	3.7	1.5	0.21	0.74	0.75	41	18	16	25	11	10
1M2ETBENZ	3.9	5.3	1.5	0.26	1.06	0.73	49	25	15	31	16	9
124MBENZ	7.3	9.9	4.7	0.49	1.99	2.34	93	47	49	58	29	30
SBUBENZENE	2.4	5.0	1.9	0.16	1.00	0.94	30	24	20	19	15	12
N DECANE	0.3	0.4	0.2	0.02	0.07	0.09	3	2	2	2	1	1
123MBENZ	0.1	1.5	0.9	0.01	0.30	0.43	2	7	9	1	4	6
INDANE	0.4	0.5	0.4	0.03	0.11	0.19	5	3	4	3	2	2
13EBENZENE	0.2	0.4	0.3	0.01	0.07	0.15	2	2	3	2	1	2
NBUBENZENE	0.2	0.4	0.3	0.01	0.07	0.13	2	2	3	2	1	2
1M3PRBENZ	0.8	1.2	0.7	0.05	0.24	0.36	10	6	8	6	4	5
UNKNOWNS	65.0	54.9	15.3	4.31	11.01	7.52	832	263	159	517	163	99

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20201
DATE RUN: 11 23 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: L J WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 20

	BAG1	BAG2	BAG3
HYDROCARBON CONCENTRATION FID PPMC	1040.7	126.4	220.5
GC PPMC	1073.0	183.4	258.4

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	108.2	7.0	8.7	10.08	3.83	3.38	1364	91	97	848	57	60
SATURATES	351.2	48.9	89.2	32.73	26.68	34.52	3965	569	884	2464	354	549
OLEFINS	201.7	32.8	45.6	18.79	17.91	17.66	2224	373	441	1382	232	274
ACETYLENE	170.1	8.7	11.1	15.85	4.73	4.29	1740	91	99	1082	57	62
NAPTHENES	19.1	2.6	4.5	1.78	1.40	1.75	211	29	44	131	18	27
AROMATICS	165.8	61.2	73.7	15.45	33.38	28.51	1717	653	669	1067	406	416
BENZENE	30.8	4.9	6.3	2.87	2.65	2.45	315	51	57	196	32	35
TOLUENE	47.9	13.1	13.8	4.47	7.16	5.33	496	140	125	309	87	78
C8+AROM	87.1	43.2	53.6	8.11	23.57	20.73	916	468	495	569	291	307
UNKNOWN	57.0	22.1	25.6	0.00	0.00	0.00	601	241	237	374	149	147
INDIVIDUAL COMPONENTS												
METHANE	108.2	7.0	8.7	10.08	3.83	3.38	1364	91	97	848	57	60
ETHYLENE	56.6	10.2	12.8	5.28	5.59	4.95	625	116	124	388	72	77
ETHANE	5.6	1.5	1.6	0.52	0.82	0.62	66	18	17	41	11	10
ACETYLENE	164.7	8.7	11.1	15.35	4.73	4.29	1685	91	99	1047	57	62
C3 + C3=	59.1	8.8	13.1	5.51	4.80	5.06	652	100	127	405	62	79
C=C=C	2.9	0.4	0.7	0.27	0.21	0.27	30	4	6	19	3	4
METHACETYL	5.4	0.0	0.0	0.50	0.00	0.00	56	0	0	35	0	0
ISOBUTANE	7.0	0.9	2.4	0.65	0.50	0.93	80	11	24	50	7	15
B1 + IB	30.5	7.8	7.0	2.84	4.26	2.70	336	89	67	209	55	42
NC4 +B=1=3	36.3	4.8	9.8	3.39	2.61	3.80	415	56	98	258	35	61
TBUTENE-2	6.4	0.9	1.3	0.60	0.47	0.51	71	10	13	44	6	8
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	5.4	0.5	1.0	0.51	0.29	0.40	66	6	10	37	4	6
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	1.6	0.2	0.3	0.15	0.11	0.13	18	2	3	11	1	2
ISOPENTANE	43.7	4.5	11.6	4.07	2.44	4.51	496	52	116	308	32	72
PENTENE-1	1.9	0.1	0.4	0.18	0.07	0.15	21	1	4	13	1	2
2MBUT-1	5.0	0.5	1.1	0.47	0.29	0.44	56	6	11	35	4	7
NPENTANE	6.3	0.7	1.7	0.59	0.39	0.66	72	8	17	44	5	11
2MB=1=3	1.3	0.2	0.0	0.12	0.11	0.00	14	2	0	9	1	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20201
DATE RUN: 11 23 77
CAR: 1972 CHEVROLET IMPALA VIN: 1M19H2J273821 DRIVER: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	4.8	0.5	1.0	0.45	0.25	0.40	53	5	10	33	3	6
CISPENT-2	2.6	0.2	0.6	0.24	0.11	0.22	29	2	6	18	1	3
2MBUT-2	9.4	1.0	2.2	0.88	0.54	0.86	104	11	22	65	7	13
22MBUTANE	0.1	1.6	0.1	0.01	0.90	0.02	1	19	1	1	12	0
CYPENTENE	1.5	0.1	0.3	0.14	0.07	0.13	16	1	3	10	1	2
3MPENTENE	1.2	0.1	0.2	0.11	0.04	0.09	13	1	2	8	0	1
CYPENTANE	1.1	0.1	0.2	0.11	0.04	0.09	12	1	2	8	0	1
23MBUTANE	8.6	0.5	1.8	0.80	0.25	0.71	97	5	18	61	3	11
2MPENTANE	17.5	1.6	4.1	1.63	0.90	1.59	197	19	41	123	12	25
3MPENTANE	9.6	1.0	2.7	0.89	0.54	1.06	108	11	27	67	7	17
MEXENE-1	2.6	0.3	0.9	0.24	0.14	0.35	29	3	9	18	2	5
N HEXANE	4.4	0.5	1.2	0.41	0.25	0.46	50	5	12	31	3	7
TC6=3=2	4.8	0.7	1.4	0.45	0.39	0.55	53	8	14	33	5	9
CC6=3	1.3	0.1	0.5	0.12	0.04	0.18	15	1	4	9	0	3
2MPENTENE2	2.5	0.3	0.7	0.24	0.14	0.27	28	3	7	17	2	4
MCYP43M2C5	8.3	0.9	2.1	0.77	0.50	0.82	92	10	20	57	6	13
24MPENTANE	13.1	1.2	3.3	1.22	0.68	1.26	147	14	32	91	9	20
BENZENE	30.8	4.9	6.3	2.87	2.65	2.45	315	51	57	196	32	35
CYHEXANE	2.1	0.1	0.3	0.19	0.07	0.11	23	1	3	14	1	2
2MC6+23MC5	38.9	4.0	9.4	3.63	2.18	3.65	438	46	93	272	29	58
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	8.2	0.9	1.9	0.77	0.47	0.75	93	10	19	58	6	12
224MPENTAN	57.6	7.2	15.1	5.37	3.90	5.86	647	83	149	402	51	93
MHEPTANE	6.8	0.8	1.7	0.63	0.43	0.66	76	9	17	47	6	11
MCYHEXANE	4.8	0.7	1.1	0.45	0.36	0.44	53	7	11	33	5	7
25MHEXANE	5.7	1.1	1.4	0.53	0.57	0.53	64	12	13	40	8	8
24MC6+233M	6.4	0.9	1.4	0.60	0.47	0.55	72	10	14	45	6	9
234MC5	28.3	5.1	6.2	2.64	2.79	2.39	318	59	61	197	37	38
TOLUENE	47.9	13.1	13.8	4.47	7.16	5.33	496	140	125	309	87	78
23MC6+4MC7	8.2	1.5	1.9	0.76	0.82	0.75	92	17	19	57	11	12

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20201
DATE RUN: 11 23 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	7.5	1.4	1.7	0.70	0.75	0.64	84	16	16	52	10	10
3MHEPTANE	7.8	1.4	1.7	0.72	0.79	0.64	87	17	16	54	10	10
25MC6	8.6	1.7	1.8	0.80	0.93	0.71	97	20	18	60	12	11
N OCTANE	3.9	0.9	0.8	0.37	0.50	0.31	44	11	8	27	7	5
23MC6	1.6	0.3	0.3	0.15	0.18	0.13	18	4	3	11	2	2
ETCYHEXANE	2.9	0.8	0.7	0.27	0.43	0.29	31	9	7	20	6	4
ET BENZENE	10.6	3.5	3.9	0.99	1.93	1.58	111	38	36	69	24	22
M+PXYLENE	32.9	12.2	15.2	3.06	6.63	5.88	343	131	139	213	81	86
24MC6	4.9	1.6	1.7	0.46	0.86	0.66	55	18	17	34	11	10
O XYLENE	12.1	4.7	6.0	1.13	2.54	2.32	126	50	55	78	31	34
N NONANE	4.2	1.1	1.5	0.39	0.61	0.57	47	13	15	29	8	9
IPRBENZENE	3.1	1.2	1.4	0.28	0.64	0.55	32	13	13	20	8	8
NPRBENZENE	1.9	1.0	1.4	0.17	0.54	0.53	20	11	13	12	7	8
1M3ETBENZ	7.2	3.7	6.1	0.67	2.04	2.36	75	40	56	47	25	35
135MEBENZ	2.6	1.6	2.7	0.24	0.86	1.06	27	17	25	17	11	16
1M2ETBENZ	3.7	2.0	2.6	0.34	1.11	1.02	38	22	24	24	14	15
124MBENZ	6.7	4.8	7.0	0.63	2.61	2.72	70	52	65	44	32	40
SBUBENZENE	3.3	4.6	3.4	0.30	2.51	1.30	34	50	31	21	31	19
N DECANE	0.3	0.3	0.2	0.03	0.14	0.09	4	3	2	2	2	1
123MBENZ	0.9	0.8	1.1	0.09	0.43	0.44	10	9	11	6	5	7
INDANE	0.5	1.4	0.6	0.05	0.75	0.22	5	15	5	3	9	3
13EBENZENE	0.1	0.6	0.6	0.01	0.32	0.22	1	6	5	0	4	3
NBUBENZENE	0.3	0.3	0.3	0.03	0.14	0.13	4	3	3	2	2	2
1M3PRBENZ	1.3	0.9	1.2	0.12	0.50	0.46	14	10	11	9	6	7
UNKNOWNS	57.0	22.1	25.6	5.31	12.07	9.90	601	241	237	374	149	147

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20202
DATE RUN: 12 02 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: L J WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 20

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	995.7	118.8	192.1
GC PPMC	999.3	133.2	535.1

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	92.8	6.7	7.5	9.29	5.05	1.39	1263	124	36	785	77	22
SATURATES	331.3	30.9	209.6	33.15	23.21	39.17	4036	511	909	2509	318	565
OLEFINS	191.2	30.3	42.8	19.13	22.78	8.00	2275	490	182	1414	304	113
ACETYLENE	145.0	8.4	10.2	14.51	6.30	1.91	1601	126	40	995	78	25
NAPTHENES	17.1	1.4	13.4	1.71	1.06	2.51	203	23	57	126	14	35
AROMATICS	165.3	39.7	179.9	16.54	29.84	33.62	1847	603	716	1148	374	445
BENZENE	25.6	4.2	7.6	2.56	3.12	1.43	282	62	30	175	39	19
TOLUENE	41.8	6.5	39.5	4.19	4.90	7.39	468	99	157	291	62	98
C8+AROM	97.9	29.1	132.7	9.79	21.82	24.80	1112	448	537	691	278	334
UNKNOWN	56.7	15.7	71.7	0.00	0.00	0.00	645	242	291	401	151	181
INDIVIDUAL COMPONENTS												
METHANE	92.8	6.7	7.5	9.29	5.05	1.39	1263	124	36	785	77	22
ETHYLENE	51.8	9.9	12.1	5.18	7.40	2.27	617	159	51	383	99	32
ETHANE	5.9	1.5	1.8	0.59	1.15	0.34	76	27	8	47	17	5
ACETYLENE	139.2	8.4	10.2	13.93	6.30	1.91	1537	126	40	955	78	25
C3 + C3=	56.2	9.3	11.7	5.63	7.02	2.18	669	151	49	416	94	31
C=C=C	2.7	0.4	0.5	0.27	0.34	0.10	31	7	2	19	4	1
METHACETYL	5.7	0.0	0.0	0.58	0.00	0.00	65	0	0	40	0	0
ISOBUTANE	7.5	1.0	1.9	0.75	0.77	0.36	93	17	9	58	11	5
B1 + IB	30.2	6.0	7.5	3.02	4.47	1.39	359	96	32	223	60	20
NC4 +B=1=3	36.2	4.2	7.8	3.62	3.12	1.46	446	70	34	277	43	21
TBUTENE-2	6.6	0.8	1.2	0.66	0.58	0.22	79	12	5	49	8	3
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	5.2	0.5	0.9	0.52	0.38	0.16	62	8	4	39	5	2
B=1=2	0.4	0.0	0.0	0.04	0.00	0.00	5	0	0	3	0	0
3MB1	1.5	0.2	0.3	0.15	0.14	0.05	18	3	1	11	2	1
ISOPENTANE	43.1	3.6	9.1	4.31	2.74	1.70	527	61	40	328	38	25
PENTENE-1	1.9	0.1	0.4	0.19	0.10	0.07	23	2	1	14	1	1
2MBUT-1	4.9	0.5	1.0	0.49	0.38	0.19	59	8	4	36	5	3
NPENTANE	6.0	0.6	1.3	0.60	0.43	0.24	74	10	6	46	6	3
2MB=1=3	0.4	0.2	0.0	0.04	0.14	0.00	5	3	0	3	2	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20202
DATE RUN: 12 02 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9M2J273821 DRIVER: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	4.7	0.4	0.9	0.47	0.29	0.16	55	6	4	34	4	2
CISPENT-2	2.5	0.2	0.5	0.25	0.14	0.09	30	3	2	18	2	1
2MBUT-2	8.8	0.8	1.9	0.68	0.62	0.35	105	13	8	65	8	5
22MBUTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTENE	1.3	0.1	0.3	0.13	0.10	0.05	16	2	1	10	1	1
3MPENTENE	0.8	0.1	0.2	0.08	0.05	0.03	10	1	1	6	1	0
CYPENTANE	1.2	0.1	0.2	0.12	0.05	0.03	14	1	1	9	1	0
23MBUTANE	7.6	0.3	1.6	0.76	0.24	0.31	93	5	7	58	3	4
2MPENTANE	15.5	3.1	4.0	1.55	2.31	0.75	188	51	17	117	32	11
3MPENTANE	8.9	0.7	2.6	0.90	0.53	0.49	109	12	11	68	7	7
MEXENE-1	2.6	0.2	0.8	0.26	0.14	0.14	31	3	3	19	2	2
N HEXANE	4.2	0.3	1.2	0.42	0.24	0.23	51	5	5	31	3	3
TC6=3,=2	4.7	0.4	1.5	0.47	0.29	0.27	56	6	6	35	4	4
CC6=3	1.4	0.1	0.6	0.14	0.10	0.12	17	2	3	10	1	2
2MPENTENE2	2.2	0.1	0.8	0.22	0.10	0.14	27	2	3	17	1	2
MCYP43M2C5	7.7	0.5	3.2	0.77	0.38	0.60	92	8	14	57	5	8
24MPENTANE	12.3	0.9	4.8	1.23	0.67	0.89	150	15	21	93	9	13
BENZENE	25.6	4.2	7.6	2.56	3.12	1.43	282	62	30	175	39	19
CYHEXANE	1.1	0.2	0.9	0.11	0.14	0.18	13	3	4	8	2	2
2MC6+23MC5	35.9	2.6	23.1	3.59	1.97	4.31	436	43	100	271	27	62
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	7.5	0.5	4.5	0.75	0.38	0.84	92	8	20	57	5	12
224MPENTAN	57.1	4.4	42.0	5.71	3.32	7.85	691	73	181	429	45	113
MHEPTANE	6.0	0.4	4.5	0.60	0.34	0.83	73	7	19	45	5	12
MCYHEXANE	4.6	0.4	5.3	0.46	0.34	0.99	55	7	22	34	4	14
25MHEXANE	4.9	0.4	4.9	0.49	0.29	0.91	59	6	21	37	4	13
24MC6+233M	6.1	0.4	6.0	0.61	0.34	1.13	74	7	26	46	5	16
234MC5	23.2	1.6	30.1	2.32	1.20	5.63	281	26	130	175	16	81
TOLUENE	41.8	6.5	39.5	4.19	4.90	7.39	468	99	157	291	62	98
23MC6+4MC7	7.5	0.6	9.4	0.75	0.48	1.75	91	11	40	56	7	25

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20202
DATE RUN: 12 02 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVEN: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	6.6	0.5	7.9	0.66	0.38	1.48	80	8	34	50	5	21
3MHEPTANE	7.2	0.6	9.3	0.72	0.43	1.73	87	9	40	54	6	25
255MC6	7.7	0.6	10.0	0.77	0.48	1.86	93	10	43	58	7	27
N OCTANE	3.4	0.3	4.8	0.35	0.24	0.89	42	5	21	26	3	13
223MC6	1.3	0.1	2.1	0.13	0.10	0.39	15	2	9	10	1	6
ETCYHEXANE	2.4	0.2	3.8	0.24	0.14	0.71	29	3	16	18	2	10
ET BENZENE	9.3	1.7	12.3	0.93	1.25	2.29	104	25	49	65	16	31
M+PXYLENE	32.0	7.1	41.2	3.20	5.33	7.71	360	109	165	224	67	103
2+4MC8	4.7	0.7	7.0	0.47	0.53	1.32	56	12	30	35	7	19
O XYLENE	12.6	2.8	17.5	1.26	2.11	3.28	142	43	70	88	27	44
N NONANE	4.5	0.6	7.3	0.45	0.43	1.37	55	9	32	34	6	20
IPRBENZENE	3.4	0.7	5.5	0.35	0.53	1.02	39	11	22	24	7	14
NPRBENZENE	2.2	0.6	3.3	0.22	0.48	0.63	25	10	13	16	6	8
1M3ETBENZ	9.8	3.1	14.3	0.98	2.35	2.68	111	48	58	69	30	36
135MEBENZ	4.1	1.4	6.2	0.41	1.06	1.15	46	22	25	29	13	15
1M2ETBENZ	5.4	1.4	8.4	0.54	1.06	1.58	62	22	34	38	13	21
124MBENZ	9.6	4.4	14.4	0.96	3.27	2.70	109	67	58	67	42	36
SBUBENZENE	4.7	2.4	5.5	0.47	1.83	1.03	53	38	22	33	23	14
N DECANE	0.6	0.1	0.5	0.06	0.10	0.10	7	2	2	4	1	1
123MBENZ	1.5	0.8	0.1	0.15	0.58	0.02	17	12	0	10	7	0
INDANE	0.6	0.4	0.0	0.06	0.29	0.00	7	6	0	4	4	0
13EBENZENE	1.2	0.4	0.7	0.12	0.29	0.13	14	6	3	9	4	2
NBUBENZENE	1.1	0.7	1.6	0.12	0.53	0.31	13	11	7	8	7	4
1M3PRBENZ	0.3	1.2	1.5	0.03	0.86	0.29	4	18	6	2	11	4
UNKNOWNS	56.7	15.7	71.7	5.67	11.77	13.40	645	242	291	401	151	181

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20401
DATE RUN: 11 22 77
CAR: 1972 CHEVROLLT IMPALA VIN: 1NC9H2J273821 DRIVEN: SWARTZLANDER FUEL: WINTER

GAS CHROMATUGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 48

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	629.4	104.3	238.3
GC PPMC	763.7	199.3	268.7

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	58.4	6.5	8.0	7.64	3.24	2.98	642	67	94	399	42	59
SATURATES	264.5	56.6	109.2	34.64	28.40	40.65	2604	529	1151	1618	329	715
OLEFINS	119.2	28.2	46.1	15.61	14.14	17.15	1146	257	474	712	160	295
ACETYLENE	80.1	7.7	10.3	10.49	3.84	3.83	715	65	98	444	40	61
NAPTHENES	14.3	2.9	5.1	1.87	1.46	1.91	137	27	53	85	17	33
AROMATICS	174.9	75.9	68.6	22.90	38.09	25.53	1579	650	663	981	404	412
BENZENE	20.3	4.7	5.8	2.66	2.35	2.14	181	40	55	112	25	34
TOLUENE	52.9	18.4	15.8	6.93	9.21	5.88	478	157	153	297	98	95
C8+AROM	101.7	52.9	47.1	13.32	26.52	17.51	933	460	462	580	286	287
UNKNOWN	52.3	21.6	21.4	0.00	0.00	0.00	481	188	210	299	117	131
INDIVIDUAL COMPONENTS												
METHANE	58.4	6.5	8.0	7.64	3.24	2.98	642	67	94	399	42	59
ETHYLENE	35.8	9.4	12.3	4.69	4.73	4.58	345	86	127	214	53	79
ETHANE	4.3	1.1	1.7	0.56	0.57	0.61	44	11	18	27	7	11
ACETYLENE	80.1	7.7	10.3	10.49	3.84	3.83	715	65	98	444	40	61
C3 + C3=	34.5	8.2	11.8	4.38	4.13	4.40	322	75	122	200	47	76
C=C=C	1.5	0.3	0.4	0.20	0.16	0.14	14	3	4	9	2	2
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	5.2	0.8	3.0	0.68	0.38	1.12	52	7	32	32	4	20
B1 + 1B	18.8	5.1	6.9	2.47	2.57	2.57	181	47	71	113	29	44
NC4 +B=1=3	21.0	4.4	14.6	2.75	2.19	5.42	20	41	155	130	26	96
TBUTENE-2	3.1	0.8	1.7	0.41	0.38	0.61	30	7	17	19	4	11
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	2.4	0.5	1.3	0.32	0.25	0.48	24	5	13	15	3	8
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.8	0.2	0.4	0.11	0.10	0.16	8	2	4	5	1	3
ISOPENTANE	25.2	4.1	16.5	3.30	2.03	6.13	250	38	174	155	24	108
PENTENE-1	0.9	0.1	0.6	0.12	0.06	0.20	9	1	6	6	1	4
2MBUT-1	2.8	0.4	1.5	0.36	0.22	0.55	27	4	15	17	3	9
NPENTANE	3.8	0.6	2.3	0.49	0.32	0.84	37	6	24	23	4	15
2MB=1=3	0.3	0.3	0.0	0.04	0.13	0.00	3	2	0	2	1	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20401
DATE RUN: 11 22 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: SWARTZLANDER FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	2.6	0.4	1.5	0.35	0.22	0.55	25	4	15	16	3	9
CISPENT-2	1.4	0.2	0.8	0.18	0.10	0.30	13	2	8	8	1	5
2MBUT-2	5.4	0.9	3.0	0.71	0.44	1.12	52	8	31	32	5	19
22MBUTANE	0.2	0.0	0.1	0.02	0.00	0.02	2	0	1	1	0	0
CYPENTENE	0.8	0.1	0.4	0.10	0.06	0.14	7	1	4	4	1	2
3MPENTENE	0.5	0.1	0.2	0.07	0.03	0.09	5	1	3	3	0	2
CYPENTANE	0.6	0.1	0.2	0.07	0.03	0.09	5	1	3	3	0	2
23MBUTANE	4.5	0.4	2.1	0.58	0.22	0.77	44	4	22	27	3	14
2MPENTANE	13.4	2.2	6.7	1.75	1.11	2.51	132	21	71	82	13	44
3MPENTANE	6.5	0.9	2.8	0.85	0.44	1.02	64	8	29	40	5	18
HEXENE-1	2.3	0.3	0.6	0.30	0.13	0.20	22	2	6	14	1	4
N HEXANE	3.1	0.4	1.3	0.41	0.22	0.50	31	4	14	19	3	9
TC6=3=2	3.5	0.6	1.6	0.45	0.32	0.59	33	6	16	21	4	10
CC6=3	1.1	0.0	0.5	0.14	0.00	0.18	10	0	5	6	0	3
2MPENTENE2	1.6	0.2	0.8	0.21	0.10	0.30	16	2	8	10	1	5
MCYP43M2C5	5.7	0.8	2.4	0.74	0.41	0.91	54	8	25	34	5	16
24MPENTANE	6.8	1.3	3.9	1.15	0.64	1.46	66	12	41	54	7	26
BENZENE	20.3	4.7	5.8	2.66	2.35	2.14	181	40	55	112	25	34
CYHEXANE	1.3	0.2	0.4	0.16	0.10	0.14	12	2	4	8	1	2
2MC6+23MC5	26.4	4.6	10.4	3.46	2.32	3.87	259	43	109	161	27	68
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	6.2	1.1	2.1	0.81	0.57	0.80	60	11	22	38	7	14
224MPENTAN	45.1	9.1	17.1	5.90	4.54	6.35	441	84	179	274	52	111
NHEPTANE	6.0	1.3	1.9	0.79	0.64	0.71	59	12	20	37	7	12
MCYHEXANE	3.9	0.9	1.3	0.51	0.48	0.48	37	9	13	23	5	8
25MHEXANE	6.4	1.7	1.7	0.84	0.86	0.64	63	16	18	39	10	11
24MC6+233M	5.1	1.3	1.7	0.67	0.67	0.61	50	12	17	31	8	11
234MC5	25.4	6.4	6.5	3.33	3.21	2.44	249	59	69	155	37	43
TOLUENE	52.9	18.4	15.8	6.93	9.21	5.88	478	157	153	297	98	95
23MC6+4MC7	8.1	2.3	2.2	1.06	1.14	0.82	79	21	23	49	13	14

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20401
DATE RUN: 11 22 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: SWARTZLANDER FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	7.5	2.2	2.0	0.99	1.08	0.73	74	20	21	46	12	13
3MHEPTANE	7.7	2.3	2.0	1.00	1.18	0.73	75	22	21	47	14	13
255MC6	9.4	2.6	2.2	1.22	1.30	0.82	91	24	23	57	15	14
N OCTANE	4.5	1.3	1.0	0.58	0.67	0.36	44	12	10	27	8	6
223MC6	1.7	0.5	0.4	0.22	0.25	0.16	17	5	4	10	3	3
ETCYHEXANE	2.9	0.9	0.8	0.38	0.44	0.30	28	8	8	17	5	5
ET BENZENE	11.0	4.2	3.7	1.44	2.10	1.39	100	36	36	62	22	23
M+PXYLENE	36.4	16.0	14.7	4.77	8.01	5.47	331	138	143	206	86	89
244MC8	5.2	2.0	1.7	0.68	1.02	0.64	51	19	18	32	12	11
O XYLENE	13.3	5.9	5.6	1.74	2.95	2.10	121	51	55	75	32	34
N NONANE	3.6	1.3	1.3	0.47	0.67	0.50	35	12	14	22	8	9
IPRBENZENE	3.5	1.5	1.3	0.46	0.76	0.48	32	13	13	20	8	8
NPRBENZENE	3.0	1.4	0.9	0.39	0.70	0.34	27	12	9	17	8	6
1M3ETBENZ	9.2	5.1	4.7	1.21	2.54	1.75	84	44	46	52	27	29
135MEBENZ	3.7	2.1	2.0	0.49	1.05	0.75	34	18	20	21	11	12
1M2ETBENZ	4.5	2.5	2.1	0.58	1.24	0.77	41	21	20	25	13	13
124MBENZ	8.3	6.0	5.6	1.09	2.99	2.07	76	52	55	47	32	34
SBUBENZENE	4.7	5.0	2.9	0.62	2.51	1.09	43	44	29	27	27	18
N DECANE	0.5	0.3	0.2	0.07	0.16	0.07	5	3	2	3	2	1
123MBENZ	1.1	0.9	1.0	0.15	0.44	0.36	10	8	10	6	5	6
INDANE	0.7	0.6	0.5	0.09	0.29	0.18	6	5	5	4	3	3
13EBENZENE	0.5	0.6	0.4	0.07	0.32	0.16	5	6	4	3	3	3
NBUBENZENE	0.3	0.3	0.2	0.04	0.16	0.09	3	3	2	2	2	1
1M3PRBENZ	1.4	0.9	1.3	0.19	0.48	0.50	13	8	13	8	5	8
UNKNOWNS	52.3	21.6	21.4	6.85	10.83	7.95	481	188	210	299	117	131

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20402
DATE RUN: 12 05 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: L J WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 40

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	662.7	127.4	187.6
GC PPMC	668.4	105.8	313.4

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	57.9	8.2	7.4	8.66	7.75	2.35	850	207	59	528	129	37
SATURATES	218.8	20.5	99.9	32.74	25.02	31.86	2876	599	715	1769	372	444
OLEFINS	116.7	33.5	37.2	17.47	31.63	11.86	1500	739	260	932	459	161
ACETYLENE	80.4	10.3	9.5	12.03	9.71	3.04	959	211	62	596	131	38
NAPTHENES	12.2	0.9	5.9	1.82	0.88	1.87	156	20	41	97	13	25
AROMATICS	138.7	21.7	114.9	20.75	20.50	36.65	1674	450	754	1040	280	469
BENZENE	21.3	4.6	6.4	3.18	4.38	2.03	254	95	41	158	59	26
TOLUENE	34.8	5.3	21.9	5.21	4.99	6.99	420	110	144	261	68	89
C8+AROM	82.6	11.8	86.6	12.36	11.13	27.63	1013	248	578	630	154	359
UNKNOWN	43.7	4.8	38.8	0.00	0.00	0.00	537	101	259	334	63	161
INDIVIDUAL COMPONENTS												
METHANE	57.9	8.2	7.4	8.66	7.75	2.35	850	207	59	528	129	37
ETHYLENE	34.1	11.1	10.9	5.11	10.45	3.47	439	244	76	273	152	47
ETHANE	3.8	1.9	1.7	0.56	1.82	0.55	52	46	13	32	28	8
ACETYLENE	80.4	10.3	9.5	12.03	9.71	3.04	959	211	62	596	131	38
C3 + C3=	35.0	10.5	11.8	5.23	9.91	3.75	449	232	82	279	144	51
C=C=C	1.7	0.6	0.7	0.25	0.54	0.21	21	12	4	13	7	3
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	4.9	1.1	1.7	0.73	1.01	0.53	65	24	12	40	15	8
B1 + IB	19.3	6.3	6.5	2.88	6.00	2.08	248	140	46	154	87	28
NC4 +B=1=3	14.0	3.5	4.2	2.09	3.30	1.33	186	80	30	116	50	19
TBUTENE-2	2.8	0.8	0.8	0.41	0.74	0.27	35	17	6	22	11	4
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	2.2	0.5	0.6	0.33	0.47	0.20	28	11	4	18	7	3
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.8	0.2	0.2	0.12	0.20	0.07	10	5	2	7	3	1
ISOPENTANE	20.9	3.1	5.6	3.13	2.90	1.78	276	70	40	172	43	25
PENTENE-1	0.9	0.1	0.2	0.14	0.13	0.07	12	3	2	8	2	1
2MBUT-1	2.6	0.5	0.7	0.39	0.47	0.23	33	11	5	21	7	3
NPENTANE	3.7	0.6	1.3	0.55	0.61	0.43	49	15	10	30	9	6
2MB=1=3	0.0	0.4	0.0	0.00	0.34	0.00	0	8	0	0	5	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20402
DATE RUN: 12 05 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVEN: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	2.3	0.4	0.6	0.35	0.40	0.20	30	9	4	19	6	3
CISPENT-2	1.2	0.1	0.3	0.18	0.13	0.09	15	3	2	10	2	1
2MBUT-2	5.0	0.9	1.4	0.75	0.88	0.44	65	20	10	40	13	6
22MBUTANE	0.2	0.0	0.0	0.03	0.00	0.00	2	0	0	2	0	0
CYPENTENE	0.7	0.1	0.2	0.10	0.07	0.05	9	2	1	5	1	1
3MPENTENE	0.5	0.1	0.1	0.08	0.07	0.04	6	2	1	4	1	0
CYPENTANE	0.5	0.1	0.1	0.08	0.07	0.04	6	2	1	4	1	0
23MBUTANE	4.7	0.6	1.3	0.70	0.54	0.41	62	13	9	38	8	6
2MPENTANE	10.1	2.1	2.7	1.51	2.02	0.87	133	48	20	83	30	12
3MPENTANE	6.5	0.7	1.8	0.97	0.67	0.57	85	16	13	53	10	8
HEXENE-1	2.0	0.2	0.6	0.30	0.20	0.18	26	5	4	16	3	2
N HEXANE	3.1	0.4	0.8	0.47	0.34	0.27	41	8	6	26	5	4
TC6=3,=2	3.1	0.4	0.8	0.47	0.40	0.25	40	9	5	25	6	3
CC6=3	1.0	0.1	0.4	0.15	0.07	0.12	13	2	3	8	1	2
2MPENTENE2	1.5	0.1	0.4	0.23	0.13	0.14	19	3	3	12	2	2
MCYP43M2C5	5.2	0.5	1.6	0.78	0.47	0.50	67	11	11	42	7	7
24MPENTANE	8.2	0.9	2.3	1.23	0.88	0.73	108	21	16	67	13	10
BENZENE	21.3	4.6	6.4	3.18	4.38	2.03	254	95	41	158	59	26
CYMLXANE	1.2	0.1	0.3	0.18	0.07	0.09	15	2	2	10	1	1
24C6+23MC5	23.9	2.2	8.6	3.57	2.09	2.74	313	50	61	194	31	38
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	5.6	0.6	2.0	0.85	0.54	0.62	74	13	14	46	8	9
224MPENTAN	41.9	4.3	17.3	6.27	4.05	5.51	548	96	123	341	60	76
NHEPTANE	4.7	0.4	1.8	0.70	0.34	0.59	62	8	13	38	5	8
MCYHEXANE	3.3	0.2	2.0	0.49	0.20	0.62	42	5	14	26	3	8
25MHEXANE	4.9	0.4	2.4	0.73	0.40	0.76	64	10	17	40	6	11
24MC6+233M	3.8	0.4	2.5	0.56	0.40	0.78	49	10	17	31	6	11
234MC5	19.8	1.1	13.2	2.96	1.08	4.21	259	26	94	161	16	58
TOLUENE	34.8	5.3	21.9	5.21	4.99	6.99	420	110	144	261	68	89
23MC6+4MC7	6.0	0.4	4.2	0.89	0.40	1.33	78	10	30	48	6	18

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20402
DATE RUN: 12 05 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
24MHEXANE	5.1	0.3	3.6	0.77	0.27	1.14	67	6	25	42	4	16
3MHEPTANE	5.3	0.3	4.1	0.80	0.27	1.32	70	6	29	43	4	18
255MC6	6.4	0.5	4.7	0.96	0.47	1.49	84	11	33	52	7	21
N OCTANE	2.5	0.1	2.3	0.38	0.13	0.75	33	3	17	20	2	10
223MC6	1.1	0.1	0.9	0.16	0.07	0.30	14	2	7	9	1	4
ETCYHEXANE	2.0	0.1	2.0	0.30	0.07	0.62	26	2	14	16	1	8
ET BENZENE	8.2	0.6	6.9	1.22	0.61	2.20	99	13	46	62	8	28
M+PXYLENE	26.3	2.9	25.6	3.93	2.76	8.18	320	61	170	199	38	105
2+4MC8	3.8	0.2	2.1	0.56	0.20	1.30	46	5	29	31	3	18
O XYLENE	10.4	1.0	11.4	1.55	0.94	3.65	126	21	76	78	13	47
N NONANE	3.5	0.1	4.5	0.53	0.13	1.42	46	3	32	29	2	20
IPRBENZENE	2.8	0.2	3.5	0.42	0.20	1.10	35	5	23	21	3	14
NPRBENZENE	2.0	0.2	1.8	0.30	0.20	0.57	25	5	12	15	3	7
1M3ETBENZ	8.5	1.1	9.6	1.27	1.08	3.06	104	24	64	64	15	40
135MEBENZ	3.7	0.4	4.1	0.55	0.40	1.32	45	9	27	28	6	17
1M2ETBENZ	4.6	0.4	5.8	0.69	0.34	1.85	57	8	39	35	5	24
124MBENZ	8.4	1.9	10.8	1.26	1.82	3.45	103	41	72	64	25	45
SBUBENZENE	4.4	0.9	3.1	0.66	0.88	1.00	54	20	21	34	12	13
N DECANE	0.4	0.1	0.4	0.07	0.07	0.12	6	2	3	4	1	2
123MBENZ	1.3	0.4	1.7	0.19	0.34	0.53	15	8	11	10	5	7
INDANE	0.3	0.1	0.7	0.04	0.07	0.21	3	1	4	2	1	3
13EBENZENE	1.2	0.7	0.3	0.18	0.67	0.09	15	15	2	9	9	1
NBUBENZENE	0.6	0.9	0.4	0.08	0.81	0.12	7	18	3	4	11	2
1M3PRBENZ	0.1	0.0	0.9	0.01	0.00	0.30	1	0	6	0	0	4
UNKNOWNS	43.7	4.8	38.8	6.54	4.52	12.38	537	101	259	334	63	161

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20601
DATE RUN: 10 25 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: SWARTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 60

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	400.4	123.7	267.2
GC PPMC	406.6	134.3	231.5

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
				MAJOR COMPONENTS								
METHANE	25.2	7.2	9.9	6.19	5.33	4.30	334	131	150	208	81	93
SATURATES	141.3	36.5	83.9	34.75	27.17	36.23	1679	597	1134	1043	371	705
OLEFINS	96.7	30.7	58.6	23.79	22.83	25.31	1123	490	774	698	304	481
ACETYLENE	34.5	7.8	12.1	8.49	5.81	5.25	372	116	149	231	72	93
NAPTHENES	11.5	1.2	4.6	2.82	0.91	2.00	133	20	61	83	12	38
AROMATICS	69.0	30.1	45.5	16.98	22.44	19.64	752	452	564	468	281	350
BENZENE	12.1	4.7	7.6	2.97	3.47	3.30	130	69	94	81	43	58
TULUENE	22.5	6.7	15.4	5.53	5.03	6.67	245	101	192	152	63	119
C6+AROM	34.5	18.7	22.4	8.47	13.95	9.67	382	286	282	237	178	175
UNKNOWN	28.4	20.8	16.8	0.00	0.00	0.00	316	318	213	196	198	132
				INDIVIDUAL COMPONENTS								
METHANE	25.2	7.2	9.9	6.19	5.33	4.30	334	131	150	208	81	93
ETHYLENE	23.6	8.6	13.9	5.81	6.41	6.02	274	138	184	170	85	114
ETHANE	2.9	1.2	1.9	0.70	0.91	0.62	35	21	27	22	13	17
ACETYLENE	33.2	7.3	10.9	8.15	5.46	4.70	357	109	133	222	68	83
C3 + C3=	25.7	8.6	16.3	6.31	6.41	7.02	298	138	215	185	85	133
C=C=C	1.4	0.4	0.9	0.34	0.30	0.37	15	6	11	9	4	7
METHACETYL	1.4	0.5	1.3	0.34	0.35	0.55	15	7	16	9	4	10
ISOBUTANE	3.8	0.6	2.4	0.94	0.48	1.05	46	11	33	29	7	21
B1 + 1B	14.9	5.2	9.7	3.66	3.86	4.17	173	83	128	107	51	79
NC4 +B=1=3	10.3	2.7	6.7	2.54	2.04	2.87	124	45	91	77	28	57
TBUTENE-2	2.8	0.7	1.7	0.69	0.52	0.72	32	11	22	20	7	14
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	3.2	0.6	1.6	0.78	0.48	0.70	37	10	21	23	6	13
B=1=2	0.3	0.0	0.1	0.08	0.00	0.05	3	0	1	2	0	1
3MB1	1.2	0.2	0.5	0.29	0.17	0.22	14	4	7	8	2	4
ISOPENTANE	15.6	2.9	10.8	3.84	2.17	4.67	186	48	147	116	30	91
PENTENE-1	1.1	0.2	0.6	0.26	0.13	0.25	12	3	8	8	2	5
2MBUT-1	2.3	0.5	1.4	0.56	0.35	0.62	27	7	19	17	5	12
NPENTANE	3.2	0.6	2.1	0.78	0.43	0.90	38	10	28	23	6	18
2MB=1=3	0.2	0.1	0.0	0.05	0.09	0.00	2	2	0	1	1	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20601
DATE RUN: 10 25 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	2.2	0.3	1.3	0.55	0.26	0.57	26	6	18	16	3	11
CISPENT-2	1.2	0.2	0.7	0.30	0.13	0.30	14	3	9	9	2	6
2MHUT-2	4.3	0.8	2.5	1.05	0.61	1.07	50	13	33	31	8	20
22MBUTANE	0.4	10.4	0.1	0.09	7.71	0.05	4	169	2	3	105	1
CYPENTENE	0.9	1.8	0.8	0.21	1.34	0.32	10	28	10	6	17	6
3MPENTENE	4.9	1.2	3.1	1.20	0.91	1.35	57	20	41	35	12	26
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	7.8	1.9	5.3	1.92	1.39	2.30	93	30	72	58	19	45
2MPENTANE	4.6	1.1	3.2	1.14	0.82	1.37	55	18	43	34	11	27
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
HEXENE-1	1.8	0.3	1.0	0.44	0.26	0.42	21	6	13	13	3	8
N HEXANE	3.5	0.6	1.7	0.87	0.48	0.75	42	10	23	26	7	15
TC6=3.=2	2.0	0.5	1.3	0.50	0.35	0.57	24	7	18	15	5	11
CC6=3	1.5	0.2	0.5	0.37	0.13	0.20	17	3	6	11	2	4
2MPENTENE2	1.4	0.2	0.8	0.35	0.13	0.32	17	3	10	10	2	6
MCYP43M2C5	3.8	0.6	2.4	0.93	0.48	1.02	44	10	31	27	6	19
24MPENTANE	5.5	1.0	3.5	1.34	0.74	1.52	65	16	48	40	10	30
BENZENE	12.1	4.7	7.6	2.97	3.47	3.30	130	69	94	81	43	58
CYHEXANE	3.3	0.2	0.7	0.82	0.13	0.30	39	3	9	24	2	6
2MC6+23MC5	14.4	2.2	8.3	3.55	1.65	3.57	171	36	111	106	22	69
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.8	0.6	2.3	0.93	0.43	0.97	45	9	30	28	6	19
224MPENTAN	24.3	4.4	14.8	5.97	3.25	6.37	287	71	198	178	44	123
NHEPTANE	4.3	0.6	2.8	1.05	0.43	0.87	51	9	27	31	6	17
MCYHEXANE	3.3	0.3	1.2	0.81	0.22	0.60	38	5	15	24	3	9
25MHEXANE	3.8	0.6	2.1	0.94	0.48	0.90	45	10	28	28	6	17
24MC6+233M	3.5	0.4	1.9	0.85	0.30	0.82	41	7	26	25	4	16
234MC5	10.7	1.3	5.1	2.64	0.95	2.20	127	21	68	79	13	43
TOLUENE	22.5	6.7	15.4	5.53	5.03	6.67	245	101	192	152	63	119
23MC6+4MC7	3.5	0.6	1.9	0.85	0.43	0.80	41	9	25	25	6	15

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20601
DATE RUN: 10 25 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: SWANTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	3.0	0.5	1.6	0.75	0.39	0.70	36	9	22	22	5	14
3MHEPTANE	2.9	0.5	1.5	0.70	0.35	0.65	34	8	20	21	5	13
255MC6	4.0	0.6	2.1	0.98	0.48	0.90	47	10	28	29	6	17
N OCTANE	1.4	0.2	0.8	0.34	0.17	0.35	16	4	11	10	2	7
223MC6	1.5	0.1	0.4	0.38	0.04	0.17	18	1	5	11	1	3
ETCYHEXANE	1.1	0.1	0.4	0.26	0.09	0.17	12	2	5	8	1	3
ET BENZENE	4.2	0.9	2.4	1.04	0.69	1.02	46	14	30	29	9	18
M+PXYLENE	11.6	3.8	7.9	2.85	2.86	3.42	127	58	99	79	36	62
2+4MC8	1.5	0.4	0.9	0.38	0.30	0.37	18	7	12	11	4	7
O XYLENE	4.3	1.5	2.8	1.05	1.08	1.20	47	22	35	29	14	22
N NONANE	1.0	0.3	0.5	0.24	0.22	0.22	12	5	7	7	3	4
IPRBENZENE	0.8	0.2	0.5	0.20	0.17	0.20	9	4	6	6	2	4
NPRBENZENE	0.7	0.3	0.5	0.17	0.22	0.20	8	4	6	5	3	4
1M3ETBENZ	3.6	2.0	2.5	0.88	1.52	1.07	40	31	31	25	19	19
135MEBENZ	1.4	1.0	0.9	0.35	0.74	0.40	16	15	12	10	9	7
1M2ETBENZ	1.3	0.6	0.8	0.32	0.48	0.32	14	10	9	9	6	6
124MBENZ	4.0	3.7	2.5	0.99	2.73	1.10	45	56	32	28	35	20
SBUBENZENE	0.4	0.5	0.2	0.09	0.39	0.10	4	8	3	3	5	2
N DECANE	0.1	0.2	0.1	0.02	0.13	0.02	1	3	1	0	2	0
123MBENZ	0.7	1.2	0.5	0.18	0.91	0.20	8	19	6	5	12	4
INDANE	0.2	0.3	0.1	0.05	0.26	0.05	2	5	1	1	3	1
13EBENZENE	0.1	0.2	0.1	0.03	0.17	0.02	1	4	1	1	2	0
NBUBENZENE	0.6	1.0	0.3	0.14	0.74	0.15	6	15	4	4	9	3
1M3PRBENZ	0.6	1.3	0.5	0.14	1.00	0.20	6	20	6	4	13	4
UNKNOWNS	28.4	20.8	16.8	6.99	15.51	7.27	316	318	213	196	198	132

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO&: 20602
DATE RUN: 11 21 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: SWARTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 60

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	504.4	129.1	242.7
GC PPMC	496.2	156.2	372.0

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	31.3	7.3	8.6	6.30	4.70	2.32	421	119	73	262	74	45
SATURATES	163.5	38.5	143.3	32.95	24.65	38.51	1972	560	1084	1226	348	674
OLEFINS	92.8	28.8	50.6	18.70	18.44	13.60	1094	409	374	680	254	232
ACETYLENE	45.3	8.3	11.2	9.14	5.33	3.02	496	110	77	308	68	48
NAPTHENES	8.4	2.0	7.8	1.69	1.30	2.10	99	29	58	61	18	36
AROMATICS	121.1	54.3	120.1	24.40	34.73	32.28	1340	723	834	833	449	518
BENZENE	16.7	6.0	9.3	3.36	3.82	2.50	182	79	64	113	49	40
TOLUENE	32.8	13.1	37.1	6.60	8.36	9.96	362	174	257	225	108	160
C8+AROM	71.7	35.2	73.8	14.44	22.55	19.83	806	477	520	501	297	323
UNKNOWN	33.9	16.9	30.3	0.00	0.00	0.00	382	230	215	237	143	133
INDIVIDUAL COMPONENTS												
METHANE	31.3	7.3	8.6	6.30	4.70	2.32	421	119	73	262	74	45
ETHYLENE	28.0	9.5	12.7	5.63	6.09	3.42	329	135	94	205	84	58
ETHANE	3.4	1.4	2.2	0.69	0.88	0.58	43	21	17	27	13	11
ACETYLENE	44.6	8.3	11.2	8.98	5.33	3.02	487	110	77	303	68	48
C3 + C3=	26.8	7.9	13.2	5.40	5.08	3.54	316	113	97	196	70	61
C=C=C	1.4	0.3	0.8	0.27	0.17	0.21	15	4	5	9	2	3
METHACETYL	0.8	0.0	0.0	0.16	0.00	0.00	9	0	0	5	0	0
ISOBUTANE	3.3	0.6	2.2	0.67	0.38	0.60	40	9	17	25	5	11
B1 + 1B	15.6	5.1	10.5	3.15	3.28	2.83	184	73	78	114	45	48
NC4 +B=1=3	10.4	3.1	6.9	2.10	1.97	1.87	127	45	53	79	28	33
TBUTENE-2	2.1	0.7	1.2	0.43	0.42	0.33	25	9	9	16	6	6
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.7	1.0	0.9	0.34	0.67	0.25	20	15	7	12	9	4
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.7	0.2	0.4	0.14	0.13	0.11	8	3	3	5	2	2
ISOPENTANE	17.3	3.6	10.9	3.46	2.31	2.92	209	53	83	130	33	51
PENTENE-1	0.8	0.1	0.5	0.17	0.08	0.13	10	2	3	6	1	2
2MBUT-1	2.3	0.5	1.3	0.46	0.34	0.35	27	7	10	17	5	6
NPENTANE	3.8	0.8	2.2	0.76	0.50	0.60	46	11	17	28	7	11
2MB=1=3	0.0	0.3	0.0	0.00	0.17	0.00	0	4	0	0	2	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20602
DATE RUN: 11 21 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	2.1	0.5	1.3	0.43	0.29	0.35	25	7	10	16	4	6
CISPENT-2	1.1	0.2	0.6	0.22	0.13	0.17	13	3	5	8	2	3
2MBUT-2	4.5	1.0	2.6	0.90	0.67	0.71	53	15	20	33	9	12
22MBUTANE	0.2	0.0	0.0	0.04	0.00	0.00	2	0	0	1	0	0
CYPENTENE	0.5	0.1	0.3	0.10	0.08	0.08	6	2	2	4	1	1
3MPENTENE	0.3	0.1	0.2	0.07	0.04	0.05	4	1	1	2	1	1
CYPENTANE	0.3	0.1	0.2	0.07	0.04	0.06	4	1	2	2	1	1
23MBUTANE	4.8	0.9	3.0	0.97	0.55	0.81	58	12	23	36	8	14
2MPENTANE	9.2	1.6	7.7	1.86	1.01	2.07	111	23	58	69	14	36
3MPENTANE	4.6	1.0	3.2	0.93	0.63	0.87	56	14	24	35	9	15
HEXENE-1	0.8	0.3	0.5	0.16	0.17	0.14	9	4	4	6	2	2
N HEXANE	2.9	0.5	1.9	0.58	0.34	0.52	34	8	15	21	5	9
TC6=3.=2	2.3	0.7	1.4	0.46	0.42	0.38	27	9	10	17	6	6
CC6=3	0.7	0.1	1.2	0.14	0.04	0.33	8	1	9	5	1	6
2MPENTENE2	1.1	0.3	0.8	0.22	0.17	0.22	13	4	6	8	2	4
MCYP43M2C5	4.1	0.9	3.0	0.82	0.55	0.81	48	12	22	30	8	14
24MPENTANE	6.6	1.2	4.8	1.33	0.80	1.30	80	18	36	49	11	23
BENZENE	16.7	6.0	9.3	3.36	3.82	2.50	182	79	64	113	49	40
CYHEXANE	0.8	0.1	0.6	0.17	0.08	0.17	10	2	5	6	1	3
2MC6+23MC5	16.1	3.3	12.5	3.24	2.10	3.37	193	46	94	120	30	59
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	4.5	0.9	3.5	0.91	0.59	0.95	55	13	27	34	8	17
224MPENTAN	30.2	6.6	25.0	6.09	4.20	6.72	362	95	188	225	59	117
MHEPTANE	3.8	0.8	3.7	0.76	0.50	1.00	45	11	28	28	7	17
MCYHEXANE	1.8	0.5	2.1	0.35	0.29	0.55	21	7	15	13	4	9
25MHEXANE	4.5	1.0	4.8	0.90	0.67	1.30	54	15	36	33	9	23
24MC6+233M	2.6	0.7	2.8	0.52	0.46	0.76	31	10	21	19	6	13
234MC5	14.3	3.2	15.7	2.88	2.06	4.22	171	46	118	106	29	73
TOLUENE	32.8	13.1	37.1	6.60	8.36	9.96	362	174	257	225	108	160
23MC6+4MC7	3.7	1.1	4.9	0.75	0.71	1.33	44	16	37	28	10	23

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20602
DATE RUN: 11 21 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVEN: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	3.3	1.0	4.5	0.67	0.67	1.22	40	15	34	25	9	21
3MHEPTANE	3.0	1.0	4.4	0.60	0.63	1.17	36	14	33	22	9	20
25DMC6	4.3	1.3	5.8	0.86	0.84	1.57	51	19	44	32	12	27
N OCTANE	1.7	0.7	2.5	0.34	0.46	0.68	20	10	19	13	6	12
223MC6	0.6	0.2	1.1	0.13	0.13	0.28	6	3	8	5	2	5
ETCYHEXANE	1.4	0.5	1.9	0.27	0.34	0.51	16	7	14	10	5	9
ET BENZENE	0.9	2.8	7.4	1.39	1.76	1.98	77	37	51	48	23	32
M+PXYLENE	24.1	10.2	25.8	4.85	6.55	6.94	268	137	181	167	85	112
24MC6	2.7	1.1	3.6	0.54	0.71	0.98	32	16	27	20	10	17
O XYLENE	8.8	3.7	9.8	1.78	2.39	2.62	98	50	68	61	31	42
N NONANE	1.6	0.7	2.8	0.33	0.42	0.76	19	9	21	12	6	13
IPRBENZENE	1.8	0.9	2.6	0.37	0.55	0.70	20	12	18	13	7	11
NPRBENZENE	1.6	0.9	1.6	0.33	0.55	0.44	18	12	12	11	7	7
1M3ETBENZ	7.1	3.4	6.1	1.44	2.18	1.63	80	46	43	50	29	26
135MEBENZ	2.8	1.5	2.4	0.56	0.97	0.63	31	20	17	19	13	10
1M2ETBENZ	2.9	1.4	3.4	0.58	0.92	0.92	32	20	24	20	12	15
124MBENZ	7.7	4.3	5.9	1.54	2.77	1.60	86	59	42	53	36	26
SBUBENZENE	4.3	2.6	5.9	0.88	1.81	1.58	49	38	42	30	24	26
N DECANE	0.2	0.2	0.3	0.04	0.13	0.08	2	3	2	1	2	1
123MBENZ	1.2	0.6	0.8	0.24	0.38	0.22	13	8	6	8	5	4
INDANE	0.6	0.4	0.5	0.12	0.25	0.13	6	5	3	4	3	2
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.3	0.5	0.4	0.07	0.29	0.11	4	6	3	2	4	2
1M3PRBENZ	1.6	1.8	1.2	0.33	1.18	0.33	18	25	9	11	16	5
UNKNOWNS	33.9	16.9	30.3	6.82	10.84	8.16	382	230	215	237	143	133

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20701
DATE RUN: 10 26 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: SWARTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 70

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	349.7	128.9	220.4
GC PPMC	326.7	189.0	115.1

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	21.1	11.5	5.5	6.46	6.06	4.81	293	154	138	182	96	86
SATURATES	105.4	51.5	38.3	32.27	27.24	33.30	1310	619	855	814	385	531
OLEFINS	91.3	68.1	35.7	27.94	31.80	30.99	1108	706	777	689	439	483
ACETYLENE	31.6	13.9	7.5	9.67	7.35	6.51	356	151	151	221	94	94
NAPTHENES	5.4	2.7	2.1	1.65	1.45	1.86	66	32	47	41	20	29
AROMATICS	52.0	39.9	20.2	15.91	21.13	17.56	592	440	414	368	274	257
BENZENE	11.1	8.3	4.1	3.40	4.40	3.59	125	91	84	78	56	52
TOLUENE	19.6	11.9	7.1	5.99	6.27	6.15	223	131	145	139	81	90
C8+ARON	21.3	19.8	9.8	6.52	10.46	7.82	247	222	187	153	138	116
UNKNOWN	19.9	9.4	5.7	0.00	0.00	0.00	231	106	119	144	66	74
INDIVIDUAL COMPONENTS												
METHANE	21.1	11.5	5.5	6.46	6.06	4.81	293	154	138	182	96	86
ETHYLENE	22.7	15.8	8.7	6.96	8.36	7.60	276	186	191	171	115	118
ETHANE	2.9	2.0	1.2	0.89	1.07	1.03	38	26	28	24	16	17
ACETYLENE	28.7	13.0	6.8	8.80	6.86	5.90	324	141	137	201	88	85
C3 + C3=	25.5	17.1	10.0	7.81	9.06	8.69	310	201	218	193	125	135
C=C=C	1.2	0.9	0.6	0.38	0.48	0.48	14	10	11	9	6	7
METHACETYL	2.9	0.9	0.7	0.87	0.48	0.61	33	10	15	21	6	9
ISOBUTANE	3.1	1.7	1.4	0.95	0.91	1.19	39	21	31	24	13	19
B1 + IB	14.8	10.0	5.9	4.52	5.31	5.16	179	118	129	111	73	80
NC4 +B=1=3	10.2	6.0	4.1	3.14	3.16	3.56	129	73	92	80	45	57
TBUTENE-2	3.0	1.4	0.9	0.91	0.75	0.80	36	17	20	22	10	12
22MPROPANE	0.0	0.0	0.1	0.00	0.00	0.10	0	0	2	0	0	2
CBUTENE-2	2.9	1.3	1.0	0.87	0.70	0.90	35	15	23	22	10	14
B=1=2	0.4	0.0	0.1	0.11	0.00	0.86	4	0	2	3	0	1
3MB1	1.2	0.4	0.3	0.36	0.21	0.26	14	5	6	9	3	4
ISOPENTANE	13.0	6.0	5.0	3.97	3.16	4.33	162	72	112	101	45	69
PENTENE-1	1.0	0.3	0.3	0.30	0.16	0.22	12	4	6	7	2	3
2MBUT-1	2.1	1.0	0.7	0.65	0.54	0.64	26	12	16	16	7	10
NPENTANE	2.5	1.1	1.0	0.76	0.59	0.83	31	13	22	19	8	13
2MB=1=3	0.5	0.5	0.0	0.15	0.27	0.03	6	6	1	4	4	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20701
DATE RUN: 10 26 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9M23Z73A21 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.9	0.7	0.6	0.59	0.38	0.54	23	8	14	15	5	8
CISPENT-2	1.1	0.3	0.3	0.32	0.16	0.29	13	4	7	8	2	4
2MBUT-2	4.0	1.6	1.3	1.24	0.86	1.12	49	19	28	30	12	17
22MBUTANE	0.4	0.4	0.1	0.11	0.21	0.06	5	5	2	3	3	1
CYPENTENE	0.9	3.9	1.3	0.27	2.04	1.15	10	44	28	6	27	17
3MPENTENE	3.5	2.3	1.6	1.08	1.23	1.41	43	27	35	27	17	22
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	6.2	3.5	2.6	1.90	1.88	2.24	77	43	58	48	27	36
2MPENTANE	3.7	1.9	1.4	1.12	1.02	1.22	46	23	31	28	14	19
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
HEXENE-1	1.3	0.7	0.5	0.40	0.38	0.45	16	8	11	10	5	7
N HEXANE	2.0	1.1	0.8	0.63	0.59	0.71	25	13	18	16	8	11
TC6=3,=2	1.8	0.9	0.7	0.55	0.48	0.61	22	11	15	14	7	9
CC6=3	0.6	0.4	0.4	0.19	0.21	0.32	8	5	8	5	3	5
2MPENTENE2	0.9	0.4	0.3	0.27	0.21	0.26	11	5	6	7	3	4
MCYP43M2C5	2.8	1.3	1.0	0.86	0.70	0.87	34	15	22	21	10	13
24MPENTANE	4.3	2.0	1.5	1.31	1.07	1.28	53	24	33	33	15	20
BENZENE	11.1	8.3	4.1	3.40	4.40	3.59	125	91	84	78	56	52
CYHEXANE	0.9	0.6	0.5	0.27	0.32	0.42	11	7	10	7	4	6
2MC6+23MC5	10.1	4.7	3.5	3.08	2.47	3.01	125	56	77	77	35	48
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.8	1.2	0.9	0.86	0.64	0.88	35	15	21	22	9	13
224MPENTAN	18.1	8.5	6.4	5.55	4.50	5.58	224	102	142	139	63	88
NHEPTANE	2.5	1.0	0.8	0.76	0.54	0.71	31	12	18	19	8	11
MCYHEXANE	1.2	0.5	0.5	0.38	0.27	0.42	15	6	10	9	4	6
25MHEXANE	2.6	1.4	1.1	0.80	0.75	0.93	32	17	24	20	11	15
24MC6+233M	2.4	0.6	0.5	0.72	0.32	0.45	29	7	11	18	5	7
234MC5	6.1	2.4	2.0	1.86	1.29	1.73	75	29	44	47	18	27
TOLUENE	19.6	11.9	7.1	5.99	6.27	6.15	223	131	145	139	81	90
23MC6+4MC7	2.4	1.1	0.8	0.74	0.59	0.67	30	13	17	19	8	11

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20701
DATE RUN: 10 26 77
CAR: 1972 CHEVROLET IMPALA VIN: 1N69H23273821 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	2.2	0.9	0.7	0.67	0.48	0.61	27	11	16	17	7	10
3MHEPTANE	2.0	0.9	0.7	0.63	0.48	0.56	25	11	15	16	7	9
255MC6	2.7	1.2	0.9	0.84	0.64	0.77	34	15	20	21	9	12
N OCTANE	1.0	0.4	0.3	0.30	0.21	0.26	12	5	7	8	3	4
223MC6	0.4	0.2	0.1	0.13	0.11	0.13	5	2	3	3	2	2
ETCYHEXANE	0.5	0.3	0.2	0.15	0.16	0.16	6	4	4	4	2	2
ET BENZENE	2.6	1.7	0.9	0.80	0.91	0.80	30	19	19	19	12	12
M+PXYLENE	9.3	6.1	3.4	2.85	3.22	2.95	107	68	70	66	42	43
2448MC8	1.1	0.6	0.4	0.34	0.32	0.32	14	7	8	9	5	5
O XYLENE	3.2	2.2	1.2	0.99	1.18	1.03	37	25	24	23	15	15
N NONANE	0.7	0.4	0.3	0.21	0.21	0.22	8	5	6	5	3	4
IPRBENZENE	0.5	0.3	0.2	0.15	0.16	0.16	6	3	4	4	2	2
NPRBENZENE	0.3	0.3	0.1	0.10	0.16	0.13	4	3	3	2	2	2
1M3ETBENZ	1.8	2.2	0.9	0.55	1.18	0.80	21	25	19	13	15	12
135MEBENZ	0.6	0.9	0.4	0.19	0.48	0.32	7	10	8	4	6	5
1M2ETBENZ	0.6	0.6	0.3	0.17	0.32	0.22	6	7	5	4	4	3
124MBENZ	1.6	2.9	1.0	0.49	1.55	0.90	19	33	21	12	20	13
SBUBENZENE	0.1	0.3	0.1	0.04	0.16	0.10	1	3	2	1	2	1
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.2	0.4	0.1	0.06	0.21	0.13	2	5	3	1	3	2
INDANE	0.1	0.2	0.0	0.02	0.11	0.03	1	2	1	0	1	0
1JEBENZENE	0.1	0.2	0.0	0.02	0.11	0.03	1	2	1	0	1	0
NBUBENZENE	0.1	0.6	0.1	0.04	0.32	0.10	1	7	2	1	4	1
1M3PRBENZ	0.2	0.7	0.1	0.06	0.38	0.13	2	8	3	1	5	2
UNKNOWNS	19.9	9.4	5.7	6.10	4.99	4.97	231	106	119	144	66	74

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20702
DATE RUN: 11 18 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: G S MYER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 70

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	416.0	128.9	235.6
GC PPMC	613.6	305.9	453.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	21.6	6.9	8.4	3.52	2.24	1.85	190	55	56	118	34	35
SATURATES	258.3	112.7	193.7	42.09	36.84	42.74	2027	809	1152	1260	503	716
OLEFINS	82.8	34.4	50.9	13.49	11.23	11.22	634	241	296	394	150	184
ACETYLENE	31.0	8.2	11.1	5.04	2.67	2.45	220	53	60	137	33	37
NAPTHENES	14.7	6.1	11.1	2.40	2.00	2.44	113	43	64	70	27	40
AROMATICS	164.8	106.6	134.3	26.85	34.66	29.63	1186	702	733	737	436	456
BENZENE	17.5	7.2	10.3	2.86	2.34	2.27	125	47	55	78	29	34
TOLUENE	64.7	34.1	46.9	10.54	11.13	10.35	466	224	256	289	139	159
C8+AROM	82.5	65.4	77.1	13.45	21.39	17.02	604	438	428	375	272	266
UNKNOWN	40.5	31.1	43.8	0.00	0.00	0.00	297	208	244	185	129	151
INDIVIDUAL COMPONENTS												
METHANE	21.6	6.9	8.4	3.52	2.24	1.85	190	55	56	118	34	35
ETHYLENE	22.7	9.8	12.2	3.70	3.20	2.70	174	69	71	108	43	44
ETHANE	3.1	1.7	1.9	0.50	0.55	0.41	25	13	12	16	8	7
ACETYLENE	29.7	8.2	11.1	4.83	2.67	2.45	211	53	60	131	33	37
C3 + C3=	23.9	8.6	12.7	3.90	2.87	2.80	163	62	74	114	38	46
C=C=C	1.2	0.4	0.6	0.20	0.14	0.12	9	3	3	6	2	2
METHACETYL	1.3	0.0	0.0	0.21	0.00	0.00	9	0	0	6	0	0
ISOBUTANE	2.1	0.9	1.7	0.35	0.29	0.38	17	6	10	10	4	7
B1 + I8	13.5	8.3	10.0	2.20	2.71	2.28	104	58	58	64	36	36
NC4 +N=1=3	9.5	3.6	7.0	1.55	1.16	1.54	76	26	42	47	16	26
TBUTENE-2	1.6	0.7	1.3	0.26	0.24	0.28	12	5	8	8	3	5
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.4	0.5	0.9	0.22	0.16	0.20	10	3	5	6	2	3
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.6	0.2	0.4	0.10	0.06	0.09	5	1	2	3	1	1
ISOPENTANE	14.0	4.2	10.6	2.28	1.37	2.34	110	30	63	69	19	39
PENTENE-1	0.7	0.2	0.4	0.12	0.06	0.09	5	1	2	3	1	1
2MBUT-1	1.9	0.6	1.2	0.32	0.18	0.27	15	4	7	9	2	4
NPENTANE	2.9	0.9	2.2	0.47	0.29	0.50	23	6	13	14	4	8
2MB=1=3	0.8	0.2	0.1	0.13	0.08	0.02	6	2	1	4	1	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO: 20702
DATE RUN: 11 18 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: G S HYEK FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
1PENT=2	1.8	0.6	1.2	0.30	0.18	0.27	14	4	7	9	2	4
CISPENT-2	0.9	0.2	0.6	0.14	0.08	0.14	7	2	4	4	1	2
2MBUT-2	3.8	1.2	2.8	0.63	0.39	0.62	29	8	16	18	5	10
22MBUTANE	0.6	0.0	0.0	0.11	0.00	0.00	5	0	0	3	0	0
CYPENTENE	0.5	0.1	0.4	0.09	0.04	0.09	4	1	2	2	1	1
3MPENTENE	0.6	0.1	0.2	0.11	0.02	0.05	5	0	1	3	0	1
CYPENTANE	0.7	0.2	0.3	0.12	0.06	0.07	5	1	2	3	1	1
23MBUTANE	5.4	2.2	3.1	0.89	0.73	0.69	43	16	19	27	10	12
2MPENTANE	9.4	3.1	7.9	1.53	1.00	1.75	74	22	47	46	14	29
3MPENTANE	5.6	1.7	4.1	0.91	0.55	0.90	44	12	24	27	8	15
HEXENE-1	1.6	0.6	2.0	0.26	0.18	0.45	12	4	12	8	2	7
M HEXANE	3.4	1.0	2.3	0.55	0.33	0.51	26	7	14	16	4	9
TC6=3,=2	2.8	0.9	2.0	0.45	0.31	0.45	21	7	12	13	4	7
CC6=3	0.6	0.4	0.7	0.11	0.14	0.15	5	3	4	3	2	2
2MPENTENE2	1.6	0.5	1.1	0.26	0.16	0.24	12	3	6	8	2	4
MCYP&3M2C5	5.7	1.9	3.8	0.92	0.63	0.84	43	14	22	27	8	14
24MPENTANE	8.4	3.4	5.6	1.37	1.12	1.24	66	25	33	41	15	21
BENZENE	17.5	7.2	10.3	2.86	2.34	2.27	125	47	55	78	29	34
CYHEXANE	1.6	0.5	1.1	0.26	0.16	0.25	12	3	7	8	2	4
2MC6+23MC5	27.7	10.3	18.5	4.52	3.36	4.09	217	74	110	135	46	68
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	7.7	2.9	5.3	1.26	0.96	1.18	61	21	32	38	13	20
224MPENTAN	51.3	21.9	36.2	8.36	7.16	7.99	400	156	214	249	97	133
NHEPTANE	7.6	3.2	5.6	1.23	1.06	1.24	59	23	33	37	14	21
MCYHEXANE	4.0	1.9	3.2	0.65	0.63	0.71	30	14	19	19	8	12
25MHEXANE	9.2	4.4	7.3	1.50	1.43	1.61	72	31	43	45	19	27
24MC6+233M	7.0	3.0	4.5	1.14	0.98	0.99	54	21	27	34	13	17
234MC5	31.4	15.2	25.1	5.12	4.97	5.55	245	109	149	152	67	92
TOLUENE	64.7	34.1	46.9	10.54	11.13	10.35	466	224	256	289	139	159
23MC6+4MC7	9.2	5.0	7.7	1.50	1.63	1.70	72	36	45	45	22	28

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20702
DATE RUN: 11 18 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: G S HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	8.7	4.6	7.2	1.42	1.51	1.59	68	33	42	42	20	26
3MHEPTANE	8.2	4.6	7.1	1.34	1.51	1.57	64	33	42	40	20	26
25DMC6	11.2	6.1	9.3	1.82	2.00	2.04	87	44	55	54	27	34
N OCTANE	4.8	2.7	3.9	0.78	0.88	0.87	37	19	23	23	12	14
223MC6	1.7	0.9	1.7	0.28	0.31	0.37	13	7	10	8	4	6
ETCYHEXANE	2.8	1.6	2.6	0.45	0.51	0.57	21	11	15	13	7	9
ET BENZENE	9.5	5.7	8.3	1.55	1.86	1.82	69	38	45	43	23	28
M+PXYLENE	31.5	19.5	25.4	5.14	6.36	5.61	229	129	140	142	80	87
2+4MC8	4.7	2.9	4.1	0.77	0.94	0.90	37	20	24	23	13	15
O XYLENE	11.3	7.3	9.5	1.85	2.39	2.09	82	48	52	51	30	32
N NONANE	3.0	1.9	3.2	0.49	0.63	0.71	23	14	19	15	9	12
IPRBENZENE	2.8	1.9	2.6	0.46	0.63	0.57	21	13	14	13	8	9
NPRBENZENE	2.3	2.0	2.0	0.38	0.65	0.45	17	13	11	10	8	7
1M3ETBENZ	6.7	5.6	6.1	1.09	1.81	1.34	49	37	34	30	23	21
135MEBENZ	2.2	2.2	2.3	0.37	0.71	0.51	16	15	13	10	9	8
1M2ETBENZ	3.4	3.3	3.6	0.55	1.08	0.80	25	22	20	15	14	13
124MBENZ	5.4	6.1	6.1	0.89	2.00	1.35	40	41	34	25	25	21
SBUBENZENE	3.5	6.9	6.5	0.58	2.24	1.42	26	46	36	16	29	22
N DECANE	0.4	0.4	0.4	0.06	0.14	0.10	3	3	3	2	2	2
123MBENZ	0.8	0.8	0.8	0.13	0.27	0.19	6	5	5	3	3	3
INDANE	0.5	0.6	0.6	0.09	0.20	0.14	4	4	3	2	3	2
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.4	0.7	0.7	0.07	0.24	0.15	3	5	4	2	3	2
1M3PRBENZ	2.0	2.9	2.6	0.33	0.94	0.58	15	19	15	9	12	9
UNKNOWNS	40.5	31.1	43.8	6.60	10.15	9.67	297	208	244	185	129	151

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20H01
DATE RUN: 0 0
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: SWANTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	314.4	131.8	228.3
GC PPMC	721.6	112.1	230.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	17.2	4.9	9.8	2.38	4.36	4.27	97	112	126	60	70	78
SATURATES	379.6	43.3	79.5	52.58	38.62	34.51	1922	890	912	1195	553	567
OLEFINS	184.3	24.7	64.3	25.53	22.05	27.91	912	496	720	567	308	448
ACETYLENE	18.8	6.1	13.5	2.61	5.41	5.85	86	113	140	54	70	87
NAPTHENES	22.5	2.0	5.5	3.12	1.80	2.38	111	41	61	69	25	38
AROMATICS	59.2	21.2	40.7	8.21	18.90	17.69	275	399	429	171	248	266
BENZENE	10.4	3.6	7.4	1.44	3.19	3.22	48	67	77	30	41	48
TOLUENE	18.4	5.0	13.1	2.55	4.47	5.70	85	94	138	53	59	86
C8+ARUM	30.5	12.6	20.2	4.22	11.23	8.77	144	241	216	89	150	134
UNKNOWN	40.2	9.9	17.0	0.00	0.00	0.00	190	191	182	118	119	113
INDIVIDUAL COMPONENTS												
METHANE	17.2	4.9	9.6	2.38	4.36	4.27	97	112	126	60	70	78
ETHYLENE	16.9	6.8	14.8	2.62	6.09	6.42	94	137	166	58	85	103
ETHANE	14.9	0.9	2.0	2.06	0.79	0.87	79	19	24	49	12	15
ACETYLENE	18.8	5.6	12.0	2.61	5.03	5.21	86	105	125	54	65	78
C3 + C3=	107.2	6.7	17.2	14.86	6.01	7.49	530	135	193	330	84	120
C=C=C	0.0	0.3	1.0	0.00	0.26	0.43	0	6	11	0	4	7
METHALETYL	0.0	0.4	1.5	0.00	0.38	0.64	0	8	16	0	5	10
ISOBUTANE	46.8	0.5	2.8	6.48	0.45	1.20	240	11	32	149	7	20
B1 + IB	12.5	4.3	10.2	1.73	3.83	4.42	62	86	114	38	54	71
NC4 +B=1=3	87.7	2.5	8.1	12.16	2.22	3.50	450	52	94	279	32	58
TBUTENE-2	3.2	0.5	1.9	0.44	0.49	0.84	16	11	22	10	7	14
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	2.7	0.6	1.9	0.37	0.53	0.82	13	12	21	8	7	13
B=1=2	0.3	0.0	0.2	0.05	0.00	0.08	2	0	2	1	0	1
3MB1	0.8	0.2	0.6	0.11	0.15	0.28	4	3	7	3	2	5
ISOPENTANE	56.0	2.5	10.7	7.76	2.25	4.65	285	52	124	177	32	77
PENTENE-1	1.0	0.2	0.6	0.14	0.15	0.26	5	3	7	3	2	4
2MBUT-1	2.2	0.4	1.5	0.31	0.38	0.64	11	8	16	7	5	10
NPENTANE	40.3	0.6	2.2	5.58	0.53	0.95	205	12	25	127	8	16
2MB=1=3	0.0	0.2	0.0	0.00	0.19	0.00	0	4	0	0	3	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20601
DATE RUN: 0 0
CAR: 1972 CHEVROLET IMPALA VIN: 1MCSH2J273821 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.8	0.3	1.3	0.26	0.30	0.56	9	7	15	6	4	9
CISPENT-2	0.9	0.2	0.7	0.13	0.15	0.31	5	3	8	3	2	5
2MBUT-2	3.2	0.8	2.5	0.44	0.68	1.10	16	15	28	10	9	18
22MBUTANE	2.1	0.3	0.1	0.29	0.30	0.05	11	7	1	7	4	1
CYPENTENE	3.3	1.1	3.5	0.45	0.96	1.51	16	21	38	10	13	24
3MPLNTENE	5.6	1.0	2.9	0.78	0.90	1.28	28	20	33	17	13	20
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	17.0	13.1	4.9	2.35	11.72	2.12	86	270	56	53	168	35
2MPLNTANE	9.8	7.6	2.8	1.36	6.80	1.20	50	157	32	31	97	20
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
HEXENE-1	1.2	0.3	1.0	0.17	0.30	0.43	6	7	11	4	4	7
N HEXANE	16.9	0.8	1.8	2.34	0.68	0.77	86	16	20	53	10	13
TC6=3,=2	17.5	0.4	1.3	2.43	0.38	0.56	87	8	15	54	5	9
CC6=3	0.8	0.2	0.5	0.11	0.15	0.20	4	3	5	2	2	3
2MPENTENE2	1.2	0.2	0.6	0.17	0.15	0.28	6	3	7	4	2	5
MCYP43M2C5	8.3	0.6	2.2	1.15	0.56	0.95	41	13	24	25	8	15
24MPENTANE	4.5	0.8	2.9	0.63	0.75	1.28	23	17	34	14	11	21
BENZENE	10.4	3.6	7.4	1.44	3.19	3.22	48	67	77	30	41	48
CYHEXANE	5.3	0.4	1.2	0.73	0.38	0.51	26	8	13	16	5	8
2MC6+23MC5	14.0	2.1	7.2	1.94	1.92	3.12	71	44	82	44	27	51
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	6.0	0.7	2.0	0.83	0.60	0.87	30	14	23	19	9	14
224MPENTAN	18.1	3.6	12.4	2.50	3.19	5.37	91	73	141	57	45	88
NHEPTANE	9.4	0.7	2.1	1.30	0.64	0.89	47	15	24	30	9	15
MCYHEXANE	7.4	0.6	1.5	1.02	0.53	0.66	37	12	17	23	7	11
25MHEXANE	3.0	0.7	1.7	0.41	0.60	0.74	15	14	19	9	9	12
24MC6+233M	2.7	0.3	1.6	0.38	0.26	0.69	14	6	18	9	4	11
234MC5	7.1	1.1	4.1	0.99	0.94	1.79	36	22	47	22	13	29
TOLUENE	18.4	5.0	13.1	2.55	4.47	5.70	85	94	138	53	59	86
23MC6+4MC7	2.9	0.5	1.6	0.40	0.45	0.69	15	10	18	9	6	11

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20801
DATE RUN: 0 0
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	4.5	0.6	1.7	0.62	0.56	0.74	22	13	19	14	8	12
3MHEPTANE	4.9	0.8	1.8	0.69	0.68	0.77	25	15	20	15	10	13
255MC6	2.7	0.5	1.7	0.38	0.45	0.74	14	10	19	8	6	12
N OCTANE	4.4	0.9	1.5	0.60	0.83	0.64	22	19	17	14	12	10
223MC6	0.7	0.1	0.4	0.09	0.11	0.15	3	3	4	2	2	2
ETCYHEXANE	1.6	0.4	0.6	0.22	0.34	0.26	8	8	7	5	5	4
ET BENZENE	3.3	0.8	1.9	0.46	0.75	0.84	16	16	21	10	10	13
M+PXYLENE	10.0	3.0	6.7	1.39	2.70	2.91	47	58	71	29	36	44
2+4MC8	1.8	0.5	0.9	0.26	0.49	0.41	9	11	11	6	7	7
O XYLENE	3.2	1.0	2.3	0.44	0.90	1.00	15	19	24	9	12	15
N NONANE	1.3	0.5	0.7	0.18	0.41	0.31	7	9	8	4	6	5
IPRBENZENE	2.4	0.9	0.9	0.34	0.83	0.41	12	18	10	7	11	6
NPRBENZENE	0.8	0.3	0.4	0.11	0.26	0.18	4	6	4	2	4	3
1M3ETBENZ	2.4	1.2	1.9	0.33	1.09	0.82	11	23	20	7	15	12
135MEBENZ	1.1	0.6	0.8	0.16	0.53	0.36	5	11	9	3	7	5
1M2ETBENZ	0.8	0.3	0.7	0.11	0.30	0.31	4	6	8	2	4	5
124MBENZ	2.8	2.0	2.3	0.38	1.77	1.00	13	38	24	8	24	15
SBUBENZENE	1.5	0.8	0.6	0.21	0.75	0.28	7	16	7	4	10	4
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.5	0.4	0.4	0.07	0.38	0.18	2	8	4	1	5	3
INDANE	0.4	0.3	0.3	0.06	0.30	0.13	2	6	3	1	4	2
13EBENZENE	0.2	0.1	0.1	0.02	0.08	0.03	1	2	1	0	1	0
NBUBENZENE	0.5	0.3	0.4	0.07	0.26	0.15	2	6	4	1	4	2
1M3PRBENZ	0.5	0.4	0.4	0.07	0.34	0.18	2	7	4	1	5	3
UNKNOWNS	40.2	9.9	17.0	5.57	8.87	7.39	190	191	182	118	119	113

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20802
DATE RUN: 11 17 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVEN: G S HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	390.5	150.5	277.9
GC PPMC	831.1	480.7	789.4

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	18.3	6.5	11.2	2.20	1.36	1.42	112	38	50	70	24	31
SATURATES	404.7	233.7	380.2	48.69	48.62	48.16	2221	1216	1514	1381	756	941
OLEFINS	86.6	38.2	71.0	10.42	7.95	8.99	464	194	276	288	121	171
ACETYLENE	22.8	7.6	13.2	2.75	1.57	1.68	114	36	48	71	22	30
NAPTHENES	24.4	14.0	23.0	2.93	2.91	2.91	131	71	89	81	44	56
AROMATICS	198.8	131.1	218.7	23.92	27.27	27.71	1001	625	799	622	389	496
BENZENE	19.2	10.0	16.5	2.31	2.09	2.08	96	47	59	59	29	37
TOLUENE	84.1	51.2	75.0	10.12	10.66	9.50	423	245	274	263	152	170
C8+ARDM	95.5	69.8	127.3	11.49	14.52	16.12	489	338	472	304	210	294
UNKNOWN	75.6	49.6	72.2	0.00	0.00	0.00	388	241	269	241	150	167
INDIVIDUAL COMPONENTS												
METHANE	18.3	6.5	11.2	2.20	1.36	1.42	112	38	50	70	24	31
ETHYLENE	20.5	8.6	15.6	2.47	1.80	1.97	110	44	61	68	27	38
ETHANE	2.1	1.2	2.8	0.25	0.26	0.35	12	7	12	8	4	7
ACETYLENE	22.8	7.6	13.2	2.75	1.57	1.68	114	36	48	71	22	30
C3 + C3=	22.3	9.2	14.1	2.69	1.91	1.79	120	47	55	74	29	34
C=C=C	1.3	0.5	0.6	0.16	0.11	0.07	7	3	2	4	2	1
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	3.0	1.2	2.2	0.36	0.26	0.28	16	6	9	10	4	5
B1 + IB	13.5	6.6	11.6	1.63	1.37	1.47	72	34	45	45	21	28
NC4 +H=1=3	9.6	4.1	10.4	1.16	0.85	1.31	53	21	42	33	13	26
TBUTENE-2	1.9	0.8	1.7	0.23	0.17	0.22	10	4	7	6	3	4
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.4	0.6	1.3	0.17	0.12	0.17	8	3	5	5	2	3
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.6	0.3	1.2	0.07	0.06	0.15	3	1	5	2	1	3
ISOPENTANE	18.1	7.2	18.9	2.17	1.51	2.39	100	38	76	62	24	47
PENTENE-1	0.9	0.3	0.8	0.10	0.07	0.10	5	2	3	3	1	2
2MBUT-1	2.3	1.0	2.2	0.28	0.20	0.28	12	5	9	8	3	5
NPENTANE	4.1	1.7	4.2	0.50	0.35	0.53	23	9	17	14	5	10
2MB=1=3	0.4	0.4	0.2	0.05	0.08	0.03	2	2	1	1	1	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20602
DATE RUN: 11 17 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: G S HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	2.5	1.0	2.5	0.30	0.21	0.32	13	5	10	8	3	6
CISPENT-2	1.2	0.5	1.3	0.15	0.10	0.17	7	2	5	4	2	3
2MBUT-2	5.2	2.2	5.3	0.63	0.46	0.68	28	11	21	17	7	13
22MBUTANE	0.3	0.0	0.3	0.04	0.00	0.04	2	0	1	1	0	1
CYPENTENE	0.9	0.4	0.8	0.10	0.08	0.10	4	2	3	3	1	2
3MPENTENE	0.6	0.3	0.5	0.07	0.06	0.06	3	1	2	2	1	1
CYPENTANE	0.8	0.4	0.7	0.10	0.08	0.09	4	2	3	3	1	2
23MBUTANE	7.3	3.6	7.1	0.88	0.76	0.90	40	19	28	25	12	18
2MPENTANE	16.9	7.3	12.8	2.04	1.53	1.62	93	38	51	58	24	32
3MPENTANE	9.5	4.6	9.2	1.15	0.96	1.16	52	24	37	33	15	23
HEXENE-1	2.6	1.2	2.5	0.31	0.25	0.32	14	6	10	9	4	6
N HEXANE	6.0	2.9	5.6	0.72	0.60	0.72	33	15	22	20	9	14
TC6=3,=2	4.5	2.3	4.6	0.54	0.48	0.58	24	12	18	15	7	11
CC6=3	1.1	0.7	1.5	0.13	0.14	0.19	6	4	6	4	2	4
2MPENTENE2	2.9	1.4	2.5	0.35	0.30	0.31	16	7	10	10	5	6
MCYP43M2C5	9.5	5.3	9.3	1.14	1.09	1.18	51	27	36	32	17	23
24MPENTANE	14.3	8.4	13.7	1.72	1.74	1.74	78	43	54	49	27	34
BENZENE	19.2	10.0	16.5	2.31	2.09	2.08	96	47	59	59	29	37
CYHEXANE	3.0	1.7	2.7	0.36	0.36	0.35	16	9	11	10	5	7
2MC6+23MC5	48.1	28.1	44.8	5.79	5.85	5.68	263	146	178	164	91	111
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	13.7	7.9	12.5	1.65	1.64	1.59	75	41	50	47	25	31
224MPENTAN	84.1	51.1	81.2	10.12	10.63	10.29	459	264	321	285	164	200
NHEPTANE	13.1	7.7	12.4	1.57	1.61	1.56	71	40	49	44	25	30
MCYHEXANE	7.0	4.3	6.6	0.84	0.89	0.83	37	22	26	23	14	16
25MHEXANE	14.5	9.2	14.2	1.74	1.91	1.79	79	47	56	49	29	35
24MC6+233M	11.2	6.5	9.3	1.35	1.36	1.18	61	34	37	38	21	23
234MC5	49.1	32.6	46.4	5.91	6.79	5.88	268	169	184	166	105	114
TOLUENE	84.1	51.2	75.0	10.12	10.66	9.50	423	245	274	263	152	170
23MC6+4MC7	14.5	9.1	13.5	1.74	1.88	1.71	79	47	54	49	29	33

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20802
DATE RUN: 11 17 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: G S HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	13.6	8.3	12.4	1.63	1.73	1.57	74	43	49	46	27	31
3MHEPTANE	13.3	8.0	12.1	1.61	1.67	1.53	73	42	48	45	26	30
255MC6	17.7	10.9	16.1	2.13	2.26	2.04	96	56	64	60	35	39
N OCTANE	6.9	4.0	5.9	0.83	0.84	0.75	38	21	23	24	13	15
223MC6	2.8	1.6	2.5	0.34	0.33	0.32	15	8	10	10	5	6
ETCYHEXANE	4.1	2.4	3.6	0.50	0.49	0.46	22	12	14	14	7	9
ET BENZENE	11.9	7.2	10.4	1.43	1.51	1.32	60	35	38	37	22	24
M+PXYLENE	35.5	21.9	31.4	4.27	4.55	3.98	180	105	116	112	65	72
2+4MC8	6.1	3.6	5.3	0.73	0.75	0.67	33	19	21	21	12	13
O XYLENE	13.0	8.0	11.7	1.56	1.67	1.49	66	39	43	41	24	27
N NONANE	4.0	2.3	3.7	0.49	0.48	0.46	22	12	14	14	7	9
IPRBENZENE	3.9	2.2	3.3	0.46	0.46	0.42	20	11	12	12	7	8
NPRBENZENE	3.1	1.7	2.7	0.38	0.35	0.34	16	8	10	10	5	6
1M3ETBENZ	7.0	5.0	7.6	0.85	1.05	0.96	36	24	28	22	15	17
135MEBENZ	2.4	1.8	3.3	0.29	0.38	0.42	12	9	12	8	5	8
1M2ETBENZ	4.1	3.1	4.7	0.49	0.65	0.59	21	15	17	13	9	11
124MBENZ	5.7	5.8	7.8	0.69	1.22	0.99	29	28	29	18	18	18
SBUBENZENE	4.4	7.2	8.9	0.53	1.49	1.12	22	35	33	14	22	21
N DECANE	0.7	0.4	0.7	0.08	0.09	0.09	4	2	3	2	1	2
123MBENZ	0.7	0.8	1.1	0.09	0.17	0.14	4	4	4	2	2	3
INDANE	0.6	0.6	0.9	0.07	0.13	0.11	3	3	3	2	2	2
13EBENZENE	0.5	0.8	0.9	0.05	0.16	0.12	2	4	3	1	2	2
NBUBENZENE	1.9	2.8	0.3	0.23	0.58	0.04	10	14	1	6	8	1
1M3PRBENZ	0.8	0.8	32.3	0.10	0.17	4.09	4	4	120	3	2	75
UNKNOWNS	75.6	49.6	72.2	9.09	10.32	9.15	388	241	269	241	150	167

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20811
DATE RUN: 0 0 AIR CONDITIONER USED
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: SWARTZLANDER FUEL: SUMNER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	363.2	133.4	292.8
GC PPMC	517.8	194.9	293.9

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	23.3	6.4	10.0	4.50	3.28	3.40	212	85	129	131	53	80
SATURATES	127.7	34.9	111.6	24.66	17.89	37.99	1038	416	1289	645	259	801
OLEFINS	105.0	33.6	69.1	20.27	17.25	23.51	834	392	779	518	244	484
ACETYLENE	31.7	8.3	12.8	6.12	4.24	4.36	234	89	134	145	56	83
NAPTHENES	12.6	3.9	7.4	2.43	2.00	2.52	100	46	83	62	28	52
AROMATICS	129.9	57.7	53.4	25.09	29.62	18.17	969	633	566	602	393	352
BENZENE	12.3	4.5	7.7	2.37	2.32	2.61	91	49	80	56	30	50
TOLUENE	21.1	6.6	15.3	4.07	3.37	5.19	157	72	162	98	45	100
C8+AROM	96.6	46.6	30.5	18.65	23.93	10.36	732	519	328	455	323	204
UNKNOWN	87.6	50.1	29.5	0.00	0.00	0.00	666	560	319	414	348	198
INDIVIDUAL COMPONENTS												
METHANE	23.3	6.4	10.0	4.50	3.28	3.40	212	85	129	131	53	80
ETHYLENE	24.1	9.3	15.0	4.65	4.76	5.09	191	108	169	119	67	105
ETHANE	3.1	1.2	2.0	0.59	0.61	0.69	26	15	25	16	9	15
ACETYLENE	31.7	7.5	11.7	6.12	3.83	3.98	234	81	122	145	50	76
C3 + C3=	29.2	10.7	17.4	5.65	5.49	5.92	232	125	196	144	78	122
C=C=C	6.4	0.6	0.9	1.23	0.32	0.31	48	7	10	30	4	6
METHACETYL	0.0	0.8	1.1	0.00	0.41	0.38	0	9	12	0	5	8
ISOBUTANE	2.6	1.0	3.7	0.50	0.52	1.25	21	12	43	13	8	27
B1 + IB	15.4	6.0	10.4	2.96	3.08	3.54	122	70	117	76	44	73
NC4 +B=1=3	11.1	3.2	11.2	2.14	1.66	3.83	91	39	131	57	24	82
TBUTENE-2	3.2	0.8	2.1	0.61	0.41	0.71	25	9	24	16	6	15
22MPROPANE	0.0	0.0	0.1	0.00	0.00	0.04	0	0	1	0	0	1
CBUTENE-2	2.3	0.8	2.2	0.44	0.44	0.75	18	10	25	11	6	15
B=1=2	5.3	0.0	0.1	1.02	0.00	0.04	41	0	1	25	0	1
3MB1	0.8	0.2	0.7	0.16	0.12	0.23	7	3	8	4	2	5
ISOPENTANE	12.6	3.2	15.5	2.44	1.66	5.27	103	39	180	64	24	112
PENTENE-1	0.9	0.2	0.8	0.18	0.09	0.27	7	2	9	5	1	6
2MBUT-1	2.1	0.6	1.9	0.41	0.29	0.65	17	7	22	10	4	13
NPENTANE	3.9	1.0	3.8	0.76	0.49	1.02	32	12	35	20	7	22
2MB=1=3	0.5	0.1	0.0	0.10	0.06	0.00	4	1	0	3	1	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20K11
DATE RUN: 0 0 AIR CONDITIONER USED
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273621 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
TPENT=2		1.8	0.4	1.8		0.34	0.20	0.62		14	5	20		9	3	13
CISPENT-2		1.0	0.2	1.0		0.19	0.09	0.33		8	2	11		5	1	7
2MBUT-2		3.8	0.9	3.3		0.74	0.46	1.11		30	11	37		19	7	23
22MBUTANE		0.6	0.4	0.2		0.12	0.20	0.06		5	5	2		3	3	1
CYPENTENE		0.8	0.3	3.7		0.15	0.17	1.25		6	4	40		4	2	25
3MPENTENE		3.2	1.1	3.7		0.61	0.58	1.27		25	13	42		16	8	26
CYPENTANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
23MBUTANE		6.6	1.9	6.4		1.27	0.99	2.17		54	23	74		33	14	46
2MPENTANE		3.9	1.1	3.6		0.75	0.58	1.21		32	14	41		20	8	26
3MPENTANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
HEXENE-1		1.1	0.4	1.2		0.22	0.20	0.40		9	5	13		6	3	8
N HEXANE		3.8	1.2	2.5		0.73	0.64	0.87		31	15	29		19	9	18
TC6=3,=2		1.7	0.5	1.5		0.33	0.23	0.52		14	5	17		8	3	11
CC6=3		0.7	0.3	0.7		0.14	0.15	0.23		6	3	8		3	2	5
2MPENTENE 2		0.8	0.2	0.8		0.15	0.12	0.27		6	3	9		4	2	6
MCYP43M2C5		3.5	1.0	2.8		0.67	0.49	0.94		28	11	31		17	7	19
24MPENTANE		3.9	1.0	3.7		0.76	0.49	1.27		32	11	43		20	7	27
BENZENE		12.3	4.5	7.7		2.37	2.32	2.61		91	49	80		56	30	50
CYHEXANE		2.3	0.8	1.8		0.44	0.44	0.60		18	10	20		11	6	12
2MC6+23MC5		11.0	2.9	9.3		2.12	1.48	3.15		89	34	107		55	21	66
24MHEXANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
3MHEXANE		3.6	0.9	2.5		0.70	0.46	0.85		30	11	29		18	7	18
224MPENTAN		18.7	4.2	16.0		3.61	2.18	5.46		151	50	184		94	31	115
NHEPTANE		5.0	1.4	2.7		0.97	0.70	0.90		41	16	31		25	10	19
MCYHEXANE		4.5	1.4	2.1		0.87	0.73	0.71		36	17	24		22	10	15
25MHEXANE		2.3	0.6	2.3		0.44	0.29	0.77		19	7	26		12	4	16
24MC6+233M		2.2	0.5	2.0		0.42	0.26	0.69		18	6	23		11	4	15
234MC5		5.8	1.2	5.7		1.11	0.64	1.94		47	15	66		29	9	41
TOLUENE		21.1	6.6	15.3		4.07	3.37	5.19		157	72	162		98	45	100
23MC6+4MC7		2.8	0.7	2.1		0.55	0.38	0.71		23	9	24		14	5	15

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20811
DATE RUN: 0 0 AIR CONDITIONER USED
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
34MHEXANE		3.9	1.1	2.1		0.75	0.55	0.71		31	13	24		20	8	15
3MHEPTANE		4.6	1.3	2.1		0.89	0.67	0.73		37	15	25		23	10	15
255MC6		2.8	0.7	2.3		0.55	0.35	0.77		23	8	26		14	5	16
N OCTANE		4.6	1.5	2.3		0.90	0.78	0.77		38	18	26		23	11	16
223MC6		0.6	0.3	0.5		0.11	0.15	0.17		5	3	6		3	2	4
ETCYHEXANE		2.3	0.7	0.8		0.44	0.35	0.27		18	8	9		11	5	6
ET BENZENE		3.1	1.3	2.2		0.60	0.67	0.75		23	14	24		15	9	15
M+PXYLENE		13.2	4.5	7.5		2.56	2.29	2.56		99	49	80		62	31	50
2+4MC8		3.0	0.8	1.2		0.58	0.44	0.40		24	10	14		15	6	8
O XYLENE		4.6	1.5	2.6		0.89	0.78	0.88		34	17	28		21	10	17
N NONANE		4.1	1.1	6.6		0.80	0.58	2.25		33	13	76		21	8	47
IPRBENZENE		9.1	2.4	1.5		1.76	1.25	0.50		69	27	16		43	17	10
NPRBENZENE		4.5	1.4	0.7		0.86	0.73	0.23		34	16	7		21	10	5
1M3ETBENZ		3.9	1.8	2.1		0.75	0.90	0.73		29	19	23		18	12	14
135MEBENZ		6.1	2.7	1.2		1.18	1.36	0.42		46	30	13		29	18	8
1M2ETBENZ		3.4	1.4	0.9		0.66	0.70	0.31		26	15	10		16	9	6
124MBENZ		10.2	7.1	3.5		1.97	3.66	1.19		77	79	38		48	49	23
SBUBENZENE		25.7	13.3	4.4		4.96	6.82	1.48		195	148	47		121	92	29
N DECANE		0.5	0.3	0.1		0.10	0.15	0.04		4	3	1		3	2	1
123MBENZ		3.6	2.3	0.9		0.70	1.16	0.31		28	25	10		17	16	6
INDANE		1.2	0.8	0.3		0.24	0.41	0.12		9	9	4		6	5	2
13EBENZENE		1.9	1.4	0.5		0.37	0.70	0.17		15	15	5		9	9	3
NBUBENZENE		3.3	2.5	1.1		0.64	1.31	0.37		25	28	12		16	18	7
IN3PRBENZ		2.6	2.3	1.0		0.51	1.19	0.35		20	26	11		13	16	7
UNKNOWNS		87.6	50.1	29.5		16.92	25.73	10.05		666	560	319		414	348	198

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20812
DATE RUN: 11 16 77 AIR CONDITIONER USED
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9M2J273821 DRIVER: G S HYEK FUEL: SUNNER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	417.1	133.8	234.6
GC PPMC	469.5	178.0	280.4

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	20.6	6.8	11.5	4.39	3.84	4.10	246	97	123	153	60	76
SATURATES	173.5	35.0	98.3	36.96	19.65	35.05	1852	443	939	1151	275	583
OLEFINS	80.2	28.8	47.4	17.08	16.18	16.90	836	356	442	520	221	275
ACETYLENE	25.3	7.7	13.0	5.39	4.31	4.65	245	88	113	152	55	70
NAPTHENES	9.5	1.8	4.2	2.02	0.99	1.51	99	22	39	62	14	25
AROMATICS	128.0	51.2	82.5	27.27	28.79	29.42	1253	595	723	779	378	449
BENZENE	14.8	5.5	9.1	3.14	3.10	3.26	143	63	79	89	39	49
TOLUENE	39.9	13.0	21.4	8.49	7.28	7.65	390	150	188	243	94	117
C8+AROM	73.4	32.8	51.9	15.63	18.41	18.51	730	387	462	454	240	287
UNKNOWN	32.3	46.7	23.5	0.00	0.00	0.00	323	553	210	200	343	130
INDIVIDUAL COMPONENTS												
METHANE	20.6	6.8	11.5	4.39	3.84	4.10	246	97	123	153	60	76
ETHYLENE	22.5	9.2	14.8	4.79	5.14	5.29	234	113	138	146	70	86
ETHANE	2.7	1.2	1.8	0.59	0.68	0.64	31	16	18	19	10	11
ACETYLENE	25.3	7.7	13.0	5.39	4.31	4.65	245	88	113	152	55	70
C3 + C3=	24.1	8.7	12.3	5.14	4.90	4.39	252	108	115	156	67	71
C=C=C	1.3	0.4	0.8	0.28	0.22	0.30	13	5	8	8	3	5
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	2.6	0.7	2.0	0.55	0.37	0.70	28	8	19	17	5	12
B1 + IB	13.3	5.9	9.3	2.83	3.32	3.30	138	73	86	86	45	54
NC4 +B=1=3	8.5	2.8	6.4	1.81	1.58	2.29	92	36	62	57	22	39
TBUTENE-2	1.9	0.7	1.3	0.41	0.40	0.46	20	9	12	12	6	8
22MPHOPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.4	0.4	0.9	0.29	0.25	0.32	14	5	8	9	3	5
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.5	0.2	0.3	0.11	0.09	0.12	6	2	3	3	1	2
ISOPENTANE	13.0	2.6	8.2	2.78	1.46	2.94	140	33	79	87	20	49
PENTENE-1	0.6	0.1	0.3	0.13	0.06	0.12	6	1	3	4	1	2
2MBUT-1	1.8	0.4	1.1	0.38	0.25	0.38	19	5	10	12	3	6
NPENTANE	2.8	0.6	1.6	0.60	0.34	0.58	30	8	16	19	5	10
2MB=1=3	0.4	0.4	0.1	0.08	0.22	0.04	4	5	1	2	3	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20812
DATE RUN: 11 16 77 AIR CONDITIONER USED
CAR: 1972 CHEVROLET IMPALA VIN: 1N69H2J273A21 DRIVEN: G S MYER FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG 1	2	3		BAG 1	2	3		BAG 1	2	3		BAG 1	2	3	
1PENT=2	1.8	0.4	0.9		0.38	0.22	0.32		19	5	8		12	3	5	
CISPENT-2	0.3	0.2	0.5		0.06	0.09	0.16		3	2	4		2	1	3	
2MBUT-2	3.8	0.8	2.1		0.80	0.46	0.74		39	10	19		24	6	12	
22MBUTANE	0.2	0.3	0.0		0.05	0.15	0.00		3	3	0		2	2	0	
CYPENTENE	0.5	0.1	0.2		0.10	0.06	0.08		5	1	2		3	1	1	
3MPENTENE	0.4	0.1	0.2		0.08	0.03	0.06		4	1	2		2	0	1	
CYPENTANE	0.4	0.1	0.2		0.09	0.03	0.06		4	1	2		3	0	1	
23MBUTANE	4.0	0.6	1.9		0.85	0.34	0.68		43	8	18		27	5	11	
2MPENTANE	7.6	1.2	5.0		1.62	0.65	1.79		81	15	48		50	9	30	
3MPENTANE	4.8	0.7	2.1		1.03	0.40	0.76		52	9	20		32	6	13	
HEXENE-1	1.5	0.2	0.5		0.32	0.12	0.18		16	3	5		10	2	3	
N HEXANE	2.7	0.4	1.2		0.59	0.25	0.42		29	6	11		18	3	7	
TC6=3,=2	2.5	0.5	1.0		0.52	0.28	0.36		26	6	9		16	4	6	
CC6=3	0.7	0.0	0.3		0.14	0.00	0.10		7	0	3		4	0	2	
2MPENTENE2	1.1	0.1	0.5		0.24	0.06	0.16		12	1	4		7	1	3	
MCYP43M2C5	4.0	0.6	1.7		0.85	0.34	0.60		42	7	16		26	5	10	
24MPENTANE	6.5	1.0	2.5		1.37	0.56	0.89		69	13	24		43	8	15	
BENZENE	14.8	5.5	9.1		3.14	3.10	3.26		143	63	70		89	39	43	
CYHEXANE	0.9	0.1	0.5		0.19	0.06	0.16		9	1	4		6	1	3	
2MC6+23MC5	17.2	2.7	6.8		3.67	1.52	2.41		183	34	64		114	21	40	
24MHEXANE	0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0	
3MHEXANE	5.0	0.8	2.0		1.06	0.43	0.70		53	10	19		33	6	12	
224MPENTAN	33.4	5.6	13.5		7.12	3.13	4.81		355	70	128		220	44	80	
NHEPTANE	4.6	0.7	1.9		0.98	0.48	0.66		49	9	18		30	6	11	
MCYHEXANE	2.3	0.4	1.0		0.48	0.25	0.34		24	5	9		15	3	6	
25MHEXANE	5.4	1.0	2.3		1.15	0.59	0.80		57	13	21		35	8	13	
24MC6+233M	3.6	0.7	1.4		0.76	0.37	0.48		38	8	13		24	5	8	
234MC5	17.3	3.5	7.0		3.68	1.98	2.49		183	44	66		114	28	41	
TOLUENE	39.9	13.0	21.4		8.49	7.28	7.65		390	150	188		243	94	117	
23MC6+4MC7	5.3	1.2	2.2		1.12	0.65	0.78		56	15	21		35	9	13	

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20812
DATE RUN: 11 16 77 AIR CONDITIONER USED
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9M2J273821 DRIVER: G S HYEK FUEL: SUNNER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	5.0	1.1	2.0	1.07	0.62	0.72	53	14	19	33	9	12
3MHEPTANE	4.9	1.0	1.9	1.04	0.59	0.68	52	13	18	32	8	11
255MC6	6.3	1.3	2.5	1.35	0.74	0.89	67	17	24	42	10	15
N OCTANE	2.8	0.7	1.2	0.60	0.40	0.42	30	9	11	19	6	7
223MC6	1.1	0.3	0.5	0.24	0.15	0.16	12	3	4	7	2	3
ETCYHEXANE	1.9	0.6	1.0	0.41	0.31	0.34	20	7	9	12	4	6
ET BENZENE	7.8	2.9	4.6	1.67	1.64	1.65	77	34	41	48	21	25
M+PXYLENE	27.1	10.3	16.6	5.78	5.76	5.92	268	120	146	166	75	91
2+4MC8	3.4	1.2	18.9	0.73	0.68	6.74	36	15	179	22	9	111
O XYLENE	9.9	3.8	6.1	2.11	2.11	2.17	98	44	54	61	27	33
N NONANE	2.5	0.9	1.3	0.52	0.50	0.46	26	11	12	16	7	8
IPRBENZENE	2.2	0.9	1.5	0.47	0.53	0.52	22	11	13	14	7	8
NPRBENZENE	1.6	1.0	1.2	0.34	0.56	0.42	16	12	11	10	7	7
1M3ETBENZ	6.8	3.2	4.8	1.45	1.80	1.71	68	38	43	42	23	26
135MEBENZ	2.8	1.4	2.0	0.60	0.77	0.70	28	16	18	17	10	11
1M2ETBENZ	2.9	1.4	2.1	0.62	0.77	0.76	29	16	19	18	10	12
124MBENZ	6.6	3.6	5.7	1.40	2.05	2.03	65	43	51	41	27	31
SBUBENZENE	3.3	2.6	3.9	0.71	1.49	1.39	33	31	35	21	19	22
N DECANE	0.2	0.2	0.3	0.05	0.09	0.10	3	2	3	2	1	2
123MBENZ	0.8	0.6	0.9	0.18	0.31	0.32	8	6	8	5	4	5
INDANE	0.4	0.3	0.6	0.08	0.19	0.22	3	4	5	2	2	3
13EDIENZENE	0.2	0.1	0.3	0.05	0.03	0.12	2	1	3	1	0	2
NBUBENZENE	0.1	0.3	0.7	0.03	0.15	0.24	1	3	6	1	2	4
1M3PRBENZ	0.7	0.4	0.9	0.14	0.25	0.32	7	5	8	4	3	5
UNKNOWNS	32.3	46.7	23.5	6.89	26.25	8.37	323	553	210	200	343	130

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20902
DATE RUN: 11 01 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: G S MYER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION BAG1 BAG2 BAG3
FID PPMC 273.5 113.0 273.5
GC PPMC 243.2 113.1 246.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	14.8	8.8	11.3	6.08	7.78	4.60	223	171	165	139	106	103
SATURATES	84.4	31.0	100.7	34.69	27.39	40.90	1141	539	1314	709	335	817
OLEFINS	73.9	36.8	69.2	30.39	32.56	28.08	976	626	881	607	389	548
ACETYLENE	18.1	9.2	12.1	7.44	8.14	4.90	222	145	143	138	90	89
NAPTHENES	4.3	1.7	4.6	1.76	1.49	1.89	57	29	59	35	18	37
AROMATICS	39.3	22.6	38.4	16.16	19.96	15.61	487	360	460	303	224	286
BENZENE	9.8	5.7	8.5	4.01	5.05	3.47	120	90	101	74	56	63
TOLUENE	16.4	7.8	15.0	6.75	6.89	6.11	204	124	180	127	77	112
C8+ARUM	13.1	9.1	14.9	5.39	8.02	6.03	165	147	181	103	91	112
UNKNOWN	8.5	3.8	9.9	0.00	0.00	0.00	107	49	121	66	31	75
INDIVIDUAL COMPONENTS												
METHANE	14.8	8.8	11.3	6.06	7.78	4.60	223	171	165	139	106	103
ETHYLENE	18.8	11.2	15.4	7.72	9.86	6.23	248	190	196	154	118	122
ETHANE	2.4	1.4	2.8	0.97	1.25	0.83	33	26	28	21	16	17
ACETYLENE	16.4	9.2	12.1	6.72	8.14	4.90	200	145	143	125	90	89
C3 + C3=	22.6	10.5	15.7	9.30	9.27	6.39	299	178	200	186	111	125
C=C=C	1.4	0.4	0.6	0.59	0.36	0.25	18	7	8	11	4	5
METHACETYL	1.7	0.0	0.0	0.72	0.00	0.00	22	0	0	14	0	0
ISOBUTANE	2.8	0.9	3.9	1.15	0.83	1.58	38	17	51	24	10	32
B1 + 1B	12.2	6.2	10.2	5.01	5.53	4.12	161	106	129	100	66	80
NC4 +B=1=3	7.3	3.4	12.8	2.99	3.03	5.18	100	60	168	62	38	105
TBUTENE-2	1.8	0.8	2.0	0.74	0.71	0.80	24	14	25	15	9	16
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	2.2	0.6	2.0	0.89	0.53	0.83	29	10	26	18	6	16
B=1=2	0.2	0.0	0.1	0.08	0.00	0.03	2	0	1	1	0	0
3MB1	0.7	0.2	0.6	0.31	0.18	0.25	10	3	8	6	2	5
ISOPENTANE	9.7	3.7	17.3	3.99	3.27	7.01	132	65	226	82	40	141
PENTENE-1	0.6	0.1	0.8	0.23	0.12	0.33	7	2	10	5	1	6
2MBUT-1	1.4	0.5	1.9	0.59	0.48	0.78	19	9	24	12	6	15
NPENTANE	2.1	0.7	3.2	0.84	0.65	1.31	28	13	42	17	8	26
2MB=1=3	0.1	0.2	0.0	0.05	0.18	0.00	2	3	0	1	2	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20902
DATE RUN: 11 01 77
CAR: 1972 CHEVROLLT IMPALA VIN: 1MC9H2J273821 DRIVER: G S HYER FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
TPENT=2		1.2	0.5	1.9		0.51	0.42	0.75		16	8	24		10	5	15
CISPENT-2		0.6	0.2	1.0		0.26	0.18	0.40		8	3	13		5	2	8
2MBUT-2		2.6	1.0	3.5		1.07	0.89	1.41		34	17	44		21	11	27
22MBUTANE		0.2	0.2	0.2		0.08	0.18	0.08		3	4	2		2	2	2
CYPENTENE		0.5	0.9	3.3		0.20	0.83	1.33		6	16	41		4	10	25
3MPENTENE		3.5	1.6	6.1		1.43	1.43	2.46		46	27	77		29	17	48
CYPENTANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
23MBUTANE		5.4	1.5	2.3		2.22	1.31	0.93		73	26	30		45	16	19
2MPENTANE		2.9	1.3	3.9		1.20	1.13	1.58		40	22	51		25	14	32
3MPENTANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
HEXENE-1		1.1	0.6	1.2		0.43	0.53	0.50		14	10	16		9	6	10
N HEXANE		1.6	0.6	2.0		0.66	0.53	0.80		22	11	26		14	7	16
TC6=3,=2		1.2	0.7	1.6		0.51	0.65	0.65		16	13	21		10	8	13
CC6=3		0.4	0.2	0.4		0.18	0.18	0.18		6	3	6		4	2	3
2MPENTENE2		0.7	0.3	0.9		0.28	0.24	0.38		9	5	12		6	3	7
MCYP43M2C5		2.3	0.9	2.7		0.95	0.77	1.08		30	15	34		19	9	21
24MPENTANE		3.5	1.3	4.1		1.43	1.13	1.66		47	22	53		29	14	33
BENZENE		9.8	5.7	8.5		4.01	5.05	3.47		120	90	101		74	56	63
CYHEXANE		0.7	0.3	0.6		0.28	0.30	0.25		9	6	8		6	4	5
2MC6+23MC5		8.2	2.8	9.8		3.37	2.44	3.70		111	48	118		69	30	74
24MHEXANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
3MHEXANE		2.4	0.8	2.5		0.97	0.71	1.03		32	14	33		20	9	21
224MPENTAN		15.4	5.2	16.5		6.34	4.63	6.69		207	91	214		129	56	133
NHEPTANE		2.1	0.7	2.1		0.84	0.59	0.85		28	12	27		17	7	17
MCYHEXANE		0.9	0.3	1.0		0.38	0.30	0.40		12	6	13		8	4	8
25MHEXANE		2.4	0.8	2.5		0.97	0.71	1.01		32	14	32		20	9	20
24MC6+233M		1.4	0.5	1.5		0.59	0.48	0.63		19	9	20		12	6	12
234MC5		5.3	1.6	5.6		2.17	1.43	2.29		71	28	73		44	17	45
TOLUENE		16.4	7.8	15.0		6.75	6.89	6.11		204	124	180		127	77	112
23MC6+4MC7		1.9	0.7	1.9		0.79	0.65	0.78		26	13	25		16	8	15

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20902
DATE RUN: 11 01 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: G S HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
3&4MHEXANE	1.7	0.6	1.7	0.72	0.53	0.68	23	10	22	15	7	13
3MHEPTANE	1.6	0.5	1.5	0.64	0.48	0.60	21	9	19	13	6	12
255MC6	2.1	0.7	2.1	0.87	0.65	0.85	28	13	27	18	8	17
N OCTANE	0.7	0.2	0.6	0.28	0.18	0.25	9	3	8	6	2	5
223MC6	0.2	0.1	0.2	0.10	0.12	0.10	3	2	3	2	1	2
ETCYHEXANE	0.4	0.1	0.4	0.15	0.12	0.15	5	2	5	3	1	3
ET BENZENE	1.9	0.9	2.1	0.77	0.83	0.85	23	15	25	14	9	16
M+PXYLENE	6.5	3.7	5.9	2.66	3.27	2.41	81	59	72	50	37	45
2+4MC8	0.7	0.3	0.7	0.31	0.30	0.30	10	6	10	6	4	6
O XYLENE	2.1	1.3	2.0	0.87	1.13	0.80	26	21	24	16	13	15
N NONANE	0.4	0.2	0.4	0.18	0.18	0.18	6	3	6	4	2	3
IPRBENZENE	0.3	0.1	0.3	0.13	0.12	0.13	4	2	4	2	1	2
NPRBENZENE	0.2	0.1	0.2	0.08	0.12	0.10	2	2	3	1	1	2
1M3ETBENZ	0.9	0.9	1.2	0.36	0.83	0.50	11	15	15	7	9	9
135MEBENZ	0.3	0.3	0.4	0.13	0.30	0.18	4	5	5	2	3	3
1M2ETBENZ	0.2	0.2	0.4	0.10	0.18	0.15	3	3	5	2	2	3
124MBENZ	0.6	0.9	1.2	0.23	0.77	0.48	7	14	14	4	9	9
SBUBENZENE	0.1	0.1	0.2	0.05	0.06	0.08	2	1	2	1	1	1
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.1	0.1	0.2	0.03	0.12	0.10	1	2	3	0	1	2
INDANE	0.0	0.1	0.1	0.00	0.06	0.03	0	1	1	0	1	0
13EMBENZENE	0.0	0.1	0.1	0.00	0.12	0.03	0	2	1	0	1	0
NBUBENZENE	0.0	0.1	0.2	0.00	0.06	0.10	0	1	3	0	1	2
1M3PRBENZ	0.0	0.1	0.2	0.00	0.06	0.10	0	1	3	0	1	2
UNKNOWNS	8.5	3.0	9.9	3.48	2.67	4.02	107	49	121	66	31	75

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20903
DATE RUN: 11 15 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9M2J273821 DRIVER: G S MYER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	317.7	143.6	229.0
GC PPMC	458.9	198.7	278.9

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	17.6	8.5	11.4	3.85	4.29	4.08	157	116	118	98	72	73
SATURATES	164.5	52.6	95.5	35.85	26.46	34.26	1313	642	887	816	399	551
OLEFINS	63.9	33.4	48.8	13.92	16.79	17.48	498	398	442	310	247	275
ACETYLENE	20.8	8.8	12.5	4.53	4.45	4.49	150	98	105	93	61	66
NAPTHENES	9.6	3.0	5.1	2.09	1.49	1.83	75	35	46	46	22	29
AROMATICS	142.6	73.4	84.0	31.07	36.92	30.13	1044	821	716	649	510	445
BENZENE	13.8	6.8	9.6	3.01	3.44	3.44	100	76	81	62	47	50
TOLUENE	42.8	20.4	25.7	9.33	10.26	9.21	313	228	219	195	142	136
C8+AROM	86.0	46.1	48.8	18.73	23.21	17.48	640	525	422	398	326	262
UNKNOWN	39.9	19.1	21.5	0.00	0.00	0.00	298	218	187	185	135	116
INDIVIDUAL COMPONENTS												
METHANE	17.6	8.5	11.4	3.85	4.29	4.08	157	116	118	98	72	73
ETHYLENE	19.9	10.3	14.5	4.34	5.16	5.20	155	122	132	96	76	82
ETHANE	2.5	1.3	1.8	0.55	0.65	0.64	21	16	17	13	10	11
ACETYLENE	20.8	8.8	12.5	4.53	4.45	4.49	150	98	105	93	61	66
C3 + C3=	17.7	9.1	13.1	3.86	4.58	4.70	138	108	119	86	67	74
C=C=C	0.7	0.3	0.5	0.15	0.16	0.18	5	4	4	3	2	3
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.4	0.6	1.7	0.31	0.29	0.62	12	7	16	7	4	10
B1 + IB	11.3	7.9	8.6	2.47	3.96	3.07	88	94	78	55	58	48
NCA +B=1=3	6.7	3.3	7.5	1.46	1.66	2.70	54	41	71	34	25	44
TBUTENE-2	1.5	0.8	1.3	0.33	0.42	0.48	12	10	12	7	6	8
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.1	0.5	1.0	0.23	0.26	0.34	8	6	9	5	4	5
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.4	0.2	0.4	0.10	0.10	0.14	3	2	3	2	1	2
ISOPENTANE	10.3	3.6	9.8	2.24	1.82	3.53	82	44	92	51	28	57
PENTENE-1	0.4	0.1	0.4	0.10	0.06	0.14	3	2	3	2	1	2
2MBUT-1	1.4	0.5	1.2	0.30	0.26	0.41	11	6	10	7	4	6
NPENTANE	2.2	0.8	2.0	0.48	0.39	0.71	18	9	18	11	6	11
2MB1=1=3	0.3	0.3	0.4	0.07	0.13	0.14	2	3	3	1	2	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20903
DATE RUN: 11 15 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: G S HYEK FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT-2	1.3	0.5	1.2	0.29	0.20	0.44	10	6	11	6	4	7
CISPENT-2	0.6	0.2	0.6	0.14	0.10	0.21	5	2	5	3	1	3
2MBUT-2	2.9	1.0	2.5	0.64	0.52	0.89	23	12	23	14	8	14
22MBUTANE	0.2	0.3	0.2	0.04	0.13	0.07	1	3	2	1	2	1
CYPENTENE	0.4	0.1	0.3	0.08	0.06	0.09	3	1	2	2	1	1
3MPENTENE	0.2	0.1	0.2	0.04	0.03	0.07	1	1	2	1	0	1
CYPENTANE	0.3	0.1	0.3	0.07	0.06	0.09	2	2	2	2	1	1
23MBUTANE	3.1	0.9	2.3	0.67	0.45	0.82	24	11	21	15	7	13
2MPENTANE	5.7	1.7	4.0	1.24	0.84	1.44	45	20	37	28	13	23
3MPENTANE	3.6	1.2	2.6	0.79	0.58	0.92	29	14	24	18	9	15
HEXENE-1	1.1	0.3	0.7	0.23	0.16	0.25	8	4	6	5	2	4
N HEXANE	2.1	0.6	1.3	0.45	0.29	0.48	16	7	12	10	4	8
TC6=3,=2	1.3	0.6	1.2	0.29	0.32	0.44	10	8	11	6	5	7
CC6=3	0.4	0.1	0.3	0.08	0.06	0.09	3	2	2	2	1	1
2MPENTENE2	0.9	0.3	0.6	0.20	0.16	0.21	7	4	5	5	2	3
MCYP43M2C5	3.3	1.0	2.0	0.71	0.52	0.73	25	12	19	16	8	12
24MPENTANE	5.2	1.5	3.0	1.13	0.75	1.08	41	18	28	26	11	17
BENZENE	13.8	6.8	9.0	3.01	3.44	3.44	100	76	81	62	47	50
CYHEXANE	1.0	0.1	0.5	0.22	0.06	0.18	8	2	5	5	1	3
2MC6+23MC5	15.2	4.1	8.2	3.31	2.05	2.96	121	49	76	75	31	47
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	4.4	1.2	2.4	0.97	0.58	0.85	35	14	22	22	9	14
224MPENTAN	29.7	8.5	15.6	6.48	4.25	5.59	236	103	144	147	64	89
NHEPTANE	4.4	1.2	2.4	0.97	0.58	0.85	35	14	22	22	9	14
MCYHEXANE	2.4	0.8	1.2	0.53	0.39	0.41	19	9	10	12	6	6
25MHEXANE	5.7	1.8	2.7	1.24	0.91	0.99	45	22	25	28	14	16
24MC6+233M	3.6	1.1	1.7	0.78	0.55	0.60	28	13	15	18	8	10
234MC5	21.2	6.2	9.0	4.62	3.12	3.23	168	75	83	105	47	52
TOLUENE	42.8	20.4	25.7	9.33	10.26	9.21	333	228	219	195	142	136
23MC6+4MC7	6.1	2.0	2.8	1.32	1.01	1.01	48	24	26	30	15	16

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20903
DATE RUN: 11 15 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: G S MYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	5.8	1.9	2.7	1.25	0.97	0.96	46	23	25	28	15	15
3MHEPTANE	5.8	1.8	2.5	1.25	0.91	0.89	46	22	23	28	14	14
25MHC6	7.3	2.4	3.1	1.60	1.20	1.12	58	29	29	36	18	18
N OCTANE	3.4	1.2	1.5	0.75	0.62	0.55	27	15	14	17	9	9
223MHC6	1.4	0.5	0.6	0.31	0.23	0.21	11	5	5	7	3	3
ETCYHEXANE	2.6	0.9	1.2	0.56	0.45	0.41	20	11	10	12	7	6
ET BENZENE	9.9	4.3	5.1	2.15	2.14	1.83	73	48	44	45	30	27
M+PXYLENE	31.9	15.0	17.4	6.95	7.53	6.26	235	169	150	146	105	93
2+4MC8	4.3	1.8	2.3	0.93	0.91	0.82	34	22	21	21	14	13
O XYLENE	11.6	5.4	6.3	2.54	2.73	2.25	86	61	54	53	38	33
N NONANE	3.0	1.2	1.5	0.65	0.58	0.53	24	14	14	15	9	8
IPRBENZENE	2.8	1.3	1.6	0.60	0.65	0.57	20	15	14	13	9	9
NPRBENZENE	1.9	1.2	1.4	0.42	0.62	0.50	14	14	12	9	9	8
1M3ETBENZ	7.6	3.9	4.2	1.65	1.98	1.49	56	45	36	35	28	22
135MEBENZ	2.8	1.4	1.5	0.61	0.71	0.53	21	16	13	13	10	8
1M2ETBENZ	3.4	1.9	2.0	0.75	0.94	0.71	26	21	17	16	13	11
124MBENZ	6.6	4.3	3.7	1.45	2.14	1.33	49	48	32	31	30	20
SBUBENZENE	4.1	3.8	3.3	0.89	1.92	1.17	30	43	28	19	27	18
N DECANE	0.3	0.3	0.3	0.05	0.13	0.09	2	3	2	1	2	1
123MBENZ	0.9	0.6	0.4	0.20	0.32	0.16	7	7	4	4	5	2
INDANE	0.4	0.4	0.3	0.10	0.19	0.09	3	4	2	2	3	1
13EBENZENE	0.3	0.4	0.2	0.05	0.19	0.07	2	4	2	1	3	1
NBUBENZENE	0.8	1.8	1.2	0.16	0.91	0.44	6	21	11	3	13	7
1M3PRBENZ	0.9	0.5	0.3	0.20	0.23	0.09	7	5	2	4	3	1
UNKNOWNS	39.9	19.1	21.5	8.70	9.61	7.72	298	218	187	185	135	116

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20911
DATE RUN: 11 02 77 AIR CONDITIONER USED
CAR: 1972 CHEVROLLT IMPALA VIN: 1MC9H2J273821 DRIVER: G S HYEK FUEL: SUMMER

TEST TEMPERATURE = 90

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	351.0	142.0	260.3
GC PPMC	321.1	147.7	238.1

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
				MAJOR COMPONENTS								
METHANE	17.8	10.1	13.3	5.55	6.87	5.61	256	193	191	159	120	118
SATURATES	112.5	34.6	79.3	35.05	23.44	33.29	1449	589	1013	901	366	629
OLEFINS	82.9	41.0	64.8	25.80	27.78	27.20	1042	681	808	648	423	502
ACETYLENE	18.7	10.1	14.2	5.81	6.83	5.96	218	155	164	135	97	102
NAPTHENES	6.8	2.3	4.6	2.12	1.59	1.91	86	39	57	53	24	35
AROMATICS	63.7	32.9	46.5	19.84	22.24	19.54	752	512	545	468	318	339
BENZENE	11.8	6.2	9.0	3.67	4.16	3.77	138	95	104	85	59	65
TOLUENE	23.0	8.7	14.6	7.16	5.88	6.15	272	135	171	169	84	107
C8+AROM	28.9	18.0	22.9	9.01	12.19	9.62	347	285	273	216	177	170
UNKNOWN	18.7	16.6	15.5	0.00	0.00	0.00	225	264	185	140	164	115
				INDIVIDUAL COMPONENTS								
METHANE	17.8	10.1	13.3	5.55	6.87	5.61	256	193	191	159	120	118
ETHYLENE	22.5	12.9	17.7	7.01	8.76	7.44	283	215	221	176	134	137
ETHANE	2.8	1.6	2.2	0.88	1.07	0.94	38	28	30	24	18	19
ACETYLENE	18.7	10.1	14.2	5.81	6.83	5.96	218	155	164	135	97	102
C3 + C3=	23.3	12.5	17.6	7.26	8.46	7.39	293	207	219	182	129	136
C=C=C	0.9	0.4	0.7	0.29	0.30	0.30	11	7	8	7	4	5
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	2.4	1.0	2.7	0.75	0.64	1.13	31	16	35	19	10	22
B1 + 1B	13.4	7.5	10.5	4.16	5.07	4.42	168	124	131	104	77	82
NC4 +B=1=3	6.3	3.7	9.0	1.96	2.53	3.80	82	64	117	51	48	73
TBUTLNE-2	1.5	0.8	1.6	0.47	0.56	0.67	19	14	20	12	9	12
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.3	0.5	1.2	0.39	0.34	0.51	16	8	15	10	5	9
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.5	0.2	0.4	0.16	0.13	0.19	6	3	6	4	2	3
ISOPENTANE	11.2	4.2	11.9	3.49	2.83	5.01	145	72	153	90	44	95
PENTENE-1	0.5	0.1	0.4	0.16	0.09	0.19	6	2	6	4	1	3
2MBUT-1	1.4	0.6	1.3	0.45	0.39	0.57	18	9	17	11	6	10
NPENTANE	2.3	1.0	2.4	0.73	0.69	1.00	30	17	30	19	11	19
2MB=1=3	0.0	0.1	0.0	0.00	0.09	0.00	0	2	0	0	1	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20911
DATE RUN: 11 02 77 AIR CONDITIONER USED
CAR: 1972 CHLVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: G S HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.1	0.4	1.1	0.35	0.30	0.46	14	7	14	9	5	8
CISPENT-2	0.5	0.2	0.5	0.16	0.13	0.22	6	3	6	4	2	4
2MBUT-2	2.3	1.1	2.4	0.73	0.73	1.00	29	18	30	18	11	18
22MBUTANE	0.1	0.1	0.1	0.04	0.09	0.05	2	2	2	1	1	1
CYPENTENE	3.0	0.8	2.3	0.94	0.56	0.97	37	13	28	23	8	17
3MPENTENE	6.2	1.8	4.4	1.92	1.25	1.86	78	31	55	48	19	34
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	2.6	1.3	1.9	0.80	0.86	0.81	33	22	25	21	13	15
2MPENTANE	4.1	1.1	2.6	1.28	0.77	1.08	53	19	33	33	12	20
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
HEXENE-1	1.3	0.3	0.5	0.41	0.17	0.22	17	4	6	10	3	4
N HEXANE	2.3	0.6	1.7	0.73	0.43	0.70	30	11	21	19	7	13
TC6=3=2	1.6	0.6	1.1	0.51	0.39	0.46	21	9	14	13	6	8
CC6=3	0.6	0.0	0.3	0.20	0.00	0.13	8	0	4	5	0	2
2MPENTENE2	0.8	0.1	0.5	0.24	0.09	0.22	10	2	6	6	1	4
MCYP43M2C5	3.0	0.8	2.1	0.94	0.56	0.89	38	14	26	24	9	16
24MPENTANE	4.7	1.1	3.0	1.45	0.77	1.27	60	19	38	37	12	24
BENZENE	11.8	6.2	9.0	3.67	4.16	3.77	138	95	104	85	59	65
CYHEXANE	0.8	0.2	0.6	0.26	0.13	0.24	10	3	7	6	2	4
2MC6+23MC5	12.2	2.9	7.1	3.79	1.98	2.99	156	49	91	97	31	56
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.5	1.0	2.1	1.10	0.64	0.86	45	16	26	28	10	16
224MPENTAN	23.4	5.4	13.0	7.30	3.65	5.47	300	91	166	187	57	103
NHEPTANE	3.3	1.0	2.2	1.02	0.64	0.92	42	16	28	26	10	17
MCYHEXANE	1.8	0.8	1.4	0.57	0.52	0.59	23	13	18	14	8	11
25MHEXANE	4.5	1.0	2.4	1.39	0.69	1.00	57	17	30	36	11	19
24MC6+233M	1.6	0.4	0.9	0.51	0.26	0.38	21	6	11	13	4	7
234MC5	9.9	1.8	4.9	3.08	1.25	2.05	127	31	62	79	19	39
TOLUENE	23.0	8.7	14.6	7.16	5.88	6.15	272	135	171	169	84	107
23MC6+4MC7	2.8	0.7	1.5	0.88	0.47	0.65	36	12	20	23	7	12

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20911
DATE RUN: 11 02 77 AIR CONDITIONER USED
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: G S MYER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.7	0.9	1.6	0.84	0.60	0.67	35	15	20	22	9	13
3MHEPTANE	2.5	1.0	1.6	0.78	0.69	0.67	32	17	20	20	11	13
255MC6	2.8	0.6	1.5	0.88	0.43	0.62	36	11	19	23	7	12
N OCTANE	1.4	1.2	1.3	0.45	0.82	0.54	19	20	16	12	13	10
223MC6	0.4	0.1	0.2	0.12	0.04	0.08	5	1	2	3	1	2
ETCYHEXANE	1.1	0.6	0.4	0.35	0.39	0.19	14	9	6	9	6	3
ET BENZENE	3.8	0.3	2.1	1.20	0.21	0.89	46	5	25	28	3	16
M+PXYLENE	10.6	4.3	6.7	3.32	2.92	2.83	127	68	80	79	42	49
2+4MC8	1.4	0.8	0.8	0.45	0.52	0.35	19	13	11	12	8	7
O XYLENE	3.5	1.3	2.1	1.10	0.86	0.89	42	20	25	26	12	16
N NONANE	1.1	0.1	0.6	0.33	0.09	0.24	14	2	7	9	1	5
IPRBENZENE	1.4	2.0	1.3	0.43	1.37	0.57	17	32	16	10	20	10
NPRBENZENE	0.6	0.3	0.3	0.18	0.21	0.13	7	5	4	4	3	2
1M3ETBENZ	2.5	0.6	1.5	0.78	0.39	0.62	30	9	18	19	6	11
135MEBENZ	0.7	0.5	0.5	0.22	0.34	0.22	8	8	6	5	5	4
1M2ETBENZ	0.4	0.3	0.4	0.14	0.21	0.16	5	5	5	3	3	3
124MBENZ	2.3	1.6	2.4	0.71	1.07	1.00	27	25	28	17	16	18
SBUBENZENE	1.3	5.4	4.2	0.39	3.65	1.78	15	86	51	9	53	31
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.3	0.2	0.3	0.10	0.13	0.13	4	3	4	2	2	2
INDANE	0.1	0.4	0.1	0.04	0.30	0.03	1	7	1	1	4	0
13EUENZENE	0.2	0.3	0.1	0.06	0.17	0.05	2	4	2	1	3	1
NBUBENZENE	0.7	0.3	0.4	0.22	0.17	0.16	8	4	5	5	3	3
1M3PRBENZ	0.4	0.3	0.4	0.14	0.17	0.16	5	4	5	3	3	3
UNKNOWNS	18.7	16.6	15.5	5.83	11.25	6.50	225	264	185	140	164	115

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20913
DATE RUN: 11 14 77 AIR CONDITIONER USED
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: G S MYER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	319.2	133.6	222.7
GC PPMC	433.8	230.7	337.5

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	16.1	9.1	12.9	3.71	3.95	3.82	162	106	113	101	66	70
SATURATES	159.2	64.3	108.4	36.71	27.88	32.13	1435	672	847	892	418	526
OLEFINS	61.0	35.2	49.0	14.07	15.24	14.52	537	359	374	334	223	232
ACETYLENE	18.0	9.3	14.1	4.14	4.03	4.19	147	88	100	91	55	62
NAPTHENES	9.0	3.4	5.9	2.07	1.46	1.74	79	34	45	49	21	28
AROMATICS	129.9	79.6	112.1	29.93	34.52	33.22	1073	764	803	667	475	499
BENZENE	12.5	7.6	10.3	2.88	3.28	3.05	102	72	73	63	45	45
TOLUENE	44.3	25.3	35.3	10.21	10.98	10.45	366	243	253	228	151	157
C8+AROM	73.1	46.7	66.6	16.84	20.26	19.72	614	455	485	381	283	301
UNKNOWN	40.6	29.8	35.0	0.00	0.00	0.00	342	291	256	213	181	159
INDIVIDUAL COMPONENTS												
METHANE	16.1	9.1	12.9	3.71	3.95	3.82	162	106	113	101	66	70
ETHYLENE	18.5	11.4	15.5	4.27	4.96	4.58	163	117	118	101	73	73
ETHANE	2.0	1.4	1.8	0.46	0.62	0.54	19	16	15	12	10	9
ACETYLENE	18.0	9.3	14.1	4.14	4.03	4.19	147	88	100	91	55	62
C3 + C3=	17.7	10.2	13.6	4.07	4.43	4.04	155	104	104	97	65	65
C=C=C	0.8	0.2	0.4	0.19	0.08	0.13	7	2	3	4	1	2
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.4	0.4	1.2	0.33	0.17	0.37	13	4	10	8	3	6
B1 + I8	11.0	8.1	10.3	2.55	3.53	3.05	97	83	78	60	52	49
NC4 +B=1=3	6.2	3.0	6.2	1.42	1.32	1.85	56	32	49	35	20	31
TBUTENE-2	1.4	0.8	1.2	0.33	0.36	0.37	13	9	10	8	5	6
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.0	0.5	0.9	0.23	0.22	0.26	9	5	7	5	3	4
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.4	0.2	0.3	0.09	0.08	0.09	3	2	2	2	1	1
ISOPENTANE	8.5	3.0	7.4	1.96	1.29	2.20	77	31	58	48	19	36
PENTENE-1	0.4	0.1	0.2	0.10	0.03	0.07	4	1	2	2	0	1
2MBUT-1	1.2	0.4	0.8	0.27	0.17	0.24	10	4	6	6	2	4
NPENTANE	1.9	0.8	1.5	0.43	0.34	0.44	17	8	12	11	5	7
2MB=1=3	0.4	0.2	0.1	0.10	0.08	0.04	4	2	1	2	1	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20913
DATE RUN: 11 14 77 AIR CONDITIONER USED
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: G S HYLK FUEL: SUNNER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT-2	1.2	0.4	0.7	0.27	0.17	0.22	10	4	6	6	2	4
CISPENT-2	0.6	0.1	0.3	0.13	0.03	0.09	5	1	2	3	0	1
2MBUT-2	2.5	0.9	1.8	0.58	0.39	0.54	22	9	14	14	6	9
22MBUTANE	0.3	0.0	0.0	0.07	0.00	0.00	3	0	0	2	0	0
CYPENTENE	0.3	0.0	0.2	0.07	0.00	0.06	3	0	1	2	0	1
3MPENTENE	0.2	0.1	0.1	0.04	0.03	0.02	2	1	0	1	0	0
CYPENTANE	0.2	0.1	0.2	0.06	0.06	0.06	2	1	1	1	1	1
23MBUTANE	2.6	0.7	1.7	0.60	0.31	0.52	24	7	14	15	5	8
2MPENTANE	4.7	1.6	3.1	1.09	0.67	0.90	43	16	24	27	10	15
3MPENTANE	3.3	1.0	2.1	0.76	0.45	0.63	30	11	17	19	7	10
HEXENE-1	0.6	0.3	0.5	0.13	0.14	0.15	5	3	4	3	2	2
N HEXANE	1.9	0.6	1.1	0.43	0.25	0.33	17	6	9	10	4	5
TC6=3,=2	1.7	0.7	1.2	0.39	0.31	0.37	15	7	10	9	5	6
CC6=3	0.3	0.1	0.1	0.07	0.03	0.04	3	1	1	2	0	1
2MPENTENE2	0.8	0.5	0.6	0.19	0.20	0.17	7	5	4	4	3	3
MCYP4JM2C5	3.1	1.2	1.9	0.70	0.50	0.55	27	12	14	17	7	9
24MPENTANE	4.8	1.6	2.7	1.11	0.67	0.79	43	16	21	27	10	13
BENZENE	12.5	7.6	10.3	2.88	3.28	3.05	102	72	73	63	45	45
CYHEXANE	1.1	0.2	0.5	0.24	0.08	0.15	9	2	4	6	1	2
2MC6+23MC5	15.6	5.2	9.1	3.60	2.27	2.70	140	55	71	87	34	44
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	4.5	1.6	2.7	1.04	0.67	0.79	40	16	21	25	10	13
224MPENTAN	30.6	11.5	18.6	7.05	4.99	5.52	274	120	145	170	74	90
NHEPTANE	4.4	1.9	2.9	1.02	0.81	0.87	40	20	23	25	12	14
MCYHEXANE	2.4	1.1	1.7	0.55	0.48	0.50	21	11	13	13	7	8
25MHEXANE	5.7	2.5	3.8	1.32	1.06	1.13	51	26	30	32	16	18
24MC6+233M	4.0	1.6	2.5	0.92	0.70	0.74	36	17	19	22	10	12
234MC5	21.5	9.4	14.1	4.96	4.06	4.17	193	97	109	120	61	68
TOLUENE	44.3	25.3	35.3	10.21	10.98	10.45	366	243	253	228	151	157
23MC6+4MC7	5.9	2.8	4.3	1.37	1.23	1.27	53	30	33	33	18	21

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 20913
DATE RUN: 11 14 77 AIR CONDITIONER USED
CAR: 1972 CHEVROLET IMPALA VIN: 1RC9H2J273821 DRIVER: G S HYER FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	5.6	2.7	4.1	1.29	1.15	1.20	50	28	31	31	17	20
3MHEPTANE	5.3	2.5	3.9	1.22	1.09	1.16	48	26	30	30	16	19
255MC6	7.0	3.3	5.2	1.61	1.43	1.53	62	34	40	39	21	25
N OCTANE	3.2	1.6	2.2	0.73	0.67	0.66	29	16	17	18	10	11
223MC6	1.2	0.6	0.9	0.27	0.25	0.26	11	6	7	7	4	4
ETCYHEXANE	2.2	0.8	1.6	0.52	0.34	0.48	20	8	12	12	5	8
ET BENZENE	8.5	3.7	6.5	1.96	1.63	1.92	71	36	47	44	23	29
M+PXYLENE	28.4	14.3	21.4	6.54	6.19	6.36	236	138	155	147	86	96
244MC6	3.9	1.7	2.9	0.89	0.73	0.87	35	17	23	21	11	14
O XYLENE	10.4	5.3	7.8	2.39	2.30	2.31	86	51	56	54	32	35
N NONANE	2.8	1.2	1.9	0.65	0.53	0.55	25	13	14	16	8	9
IPRBENZENE	2.5	1.4	1.9	0.58	0.62	0.57	21	14	14	13	9	9
NPRBENZENE	1.4	1.6	2.1	0.33	0.70	0.63	12	16	15	7	10	10
1M3ETBENZ	6.0	4.3	5.9	1.38	1.88	1.74	50	42	43	31	26	26
135MEBENZ	2.2	1.7	2.2	0.52	0.73	0.66	19	16	16	12	10	10
1M2ETBENZ	2.7	2.3	3.1	0.63	0.98	0.92	23	22	23	14	14	14
124MBENZ	5.1	4.7	5.9	1.18	2.02	1.75	43	45	43	27	28	27
SBUBENZENE	4.1	4.7	5.6	0.95	2.02	1.66	35	45	41	22	28	25
N DECANE	0.4	0.3	0.4	0.09	0.14	0.13	3	3	3	2	2	2
123MBENZ	0.7	0.5	0.6	0.16	0.20	0.17	6	4	4	4	3	3
INDANE	0.3	0.4	0.5	0.07	0.17	0.15	3	4	4	2	2	2
13ERBENZENE	0.2	0.0	0.5	0.04	0.00	0.15	2	0	4	1	0	2
NBUBENZENE	0.1	0.0	0.0	0.01	0.00	0.00	1	0	0	0	0	0
1M3PRBENZ	0.4	1.9	2.5	0.10	0.84	0.74	4	19	18	2	12	11
UNKNOWNS	40.6	29.8	35.0	9.36	12.92	10.38	342	291	256	213	181	159

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 21101
DATE RUN: 11 03 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: G S HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	351.2	145.7	269.0
GC PPMC	287.0	128.6	219.9

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	16.7	12.4	15.9	5.82	9.66	7.23	259	268	250	161	166	155
SATURATES	108.3	34.2	77.2	37.74	26.61	35.10	1504	660	1086	934	410	675
OLEFINS	74.3	41.7	65.4	25.90	32.40	29.73	1008	785	898	626	488	556
ACETYLENE	18.5	12.1	16.4	6.45	9.44	7.46	233	212	209	145	132	130
NAPTHENES	5.8	1.4	3.8	2.03	1.07	1.39	79	26	42	49	16	26
AROMATICS	51.8	23.7	36.7	18.06	18.45	16.67	660	420	473	410	261	294
BENZENE	11.5	6.9	9.7	3.99	5.36	4.42	144	121	124	90	75	77
TOLUENE	20.4	8.9	14.7	7.12	6.92	6.67	260	158	189	162	98	118
C8+AROM	19.9	7.9	12.3	6.94	6.17	5.58	258	143	161	160	89	100
UNKNOWN	11.5	3.8	5.3	0.00	0.00	0.00	149	55	70	93	34	43
INDIVIDUAL COMPONENTS												
METHANE	16.7	12.4	15.9	5.82	9.66	7.23	259	268	258	161	166	155
ETHYLENE	22.1	13.9	18.8	7.71	10.84	8.55	300	263	258	186	163	161
ETHANE	2.9	1.7	2.3	1.01	1.29	1.03	42	33	33	26	21	21
ACETYLENE	18.5	12.1	15.9	6.45	9.44	7.23	233	212	203	145	132	126
C3 + C3=	21.4	12.3	18.4	7.44	9.60	8.38	289	233	253	180	145	157
C=C=C	0.8	0.5	0.8	0.27	0.38	0.38	10	9	11	6	5	7
METHACETYL	0.0	0.0	0.5	0.00	0.00	0.24	0	0	7	0	0	4
ISOBUTANE	2.2	1.2	2.7	0.77	0.91	1.21	31	23	38	19	14	24
B1 + IB	12.7	7.3	11.0	4.44	5.69	5.01	173	138	151	107	86	94
NC4 +B=1=3	8.3	4.5	9.7	2.89	3.49	4.40	116	88	138	72	54	85
TBUTENE-2	1.7	1.0	1.7	0.61	0.80	0.77	24	20	23	15	12	14
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.3	0.6	1.4	0.45	0.48	0.62	16	12	19	11	7	12
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.5	0.2	0.4	0.18	0.16	0.18	7	4	5	4	2	3
ISOPENTANE	12.2	4.3	11.8	4.24	3.33	5.37	170	83	167	105	52	104
PENTLNE-1	0.5	0.1	0.5	0.16	0.11	0.21	6	3	6	4	2	4
2MBUT-1	1.5	0.6	1.4	0.52	0.43	0.62	20	10	19	13	6	12
NPENTANE	2.7	1.0	2.3	0.95	0.75	1.03	38	19	32	24	12	20
2MB=1=3	0.0	0.4	0.1	0.00	0.32	0.06	0	8	2	0	5	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 21101
DATE RUN: 11 03 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: G S MYER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT-2	1.3	0.6	1.2	0.45	0.48	0.56	18	12	17	11	7	11
CISPENT-2	0.6	0.2	0.6	0.20	0.16	0.27	8	4	8	5	2	5
2MBUT-2	3.0	1.2	2.5	1.04	0.91	1.15	40	22	35	25	14	22
22MBUTANE	0.1	0.6	0.1	0.05	0.43	0.06	2	11	2	1	7	1
CYPENTENE	0.3	0.1	0.5	0.11	0.11	0.21	4	3	6	3	2	4
3MPENTLNE	2.9	1.5	3.4	1.01	1.18	1.56	39	29	47	25	18	29
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	5.7	2.1	5.0	1.98	1.66	2.27	79	41	70	49	26	44
2MPENTANE	3.4	1.0	2.7	1.19	0.75	1.21	48	19	37	30	12	23
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MEXENE-1	0.6	0.1	0.6	0.20	0.05	0.29	8	1	9	5	1	6
N HEXANE	1.9	0.6	1.4	0.65	0.43	0.62	26	11	19	16	7	12
TC6=3=2	1.5	0.5	1.2	0.52	0.38	0.53	20	9	16	13	6	10
CC6=3	0.9	0.1	0.3	0.32	0.11	0.15	12	3	4	8	2	3
2MPENTENE2	0.8	0.3	0.5	0.27	0.21	0.24	11	5	7	7	3	4
MCYP4JM2C5	2.8	0.8	2.0	0.99	0.64	0.91	39	16	28	24	10	17
24MPENTANE	4.5	1.3	3.0	1.56	1.02	1.39	62	25	43	38	16	27
BENZENE	11.5	6.9	9.7	3.99	5.36	4.42	144	121	124	90	75	77
CYHEXANE	0.8	0.1	0.1	0.27	0.11	0.06	11	3	2	7	2	1
2MC6=23MC5	11.4	3.0	6.7	3.97	2.31	3.07	158	57	95	98	35	59
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.3	0.8	1.8	1.15	0.64	0.83	46	16	25	28	10	16
224MPENTAN	21.2	5.6	12.6	7.37	4.35	5.75	292	107	177	181	67	110
NMLPTANE	2.8	0.6	1.5	0.99	0.48	0.68	39	12	21	24	7	13
MCYHEXANE	1.4	0.3	0.7	0.50	0.27	0.32	19	7	10	12	4	6
25MHEXANE	2.8	0.8	1.8	0.97	0.59	0.80	38	15	24	24	9	15
24MC6=233M	2.3	0.6	1.3	0.79	0.43	0.59	31	11	18	19	7	11
234MC5	8.2	1.7	4.2	2.86	1.29	1.89	113	32	58	70	20	36
TOLUENE	20.4	8.9	14.7	7.12	6.92	6.67	280	158	189	162	98	118
23MC6=4MC7	2.5	0.7	1.4	0.86	0.54	0.65	34	13	20	21	8	12

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 21101
DATE RUN: 11 03 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: G S HYEK FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	2.3	0.6	1.2	0.79	0.43	0.56	31	11	17	19	7	11
3MHEPTANE	2.1	0.6	1.0	0.72	0.43	0.47	29	11	15	18	7	9
255MC6	2.6	0.7	1.5	0.90	0.54	0.68	36	13	21	22	8	13
N OCTANE	1.1	0.2	0.4	0.38	0.16	0.18	15	4	5	9	2	3
223MC6	0.2	0.1	0.1	0.07	0.05	0.06	3	1	2	2	1	1
ETCYHEXANE	0.8	0.1	0.2	0.27	0.05	0.09	11	1	3	7	1	2
ET BENZENE	2.8	0.9	1.7	0.99	0.70	0.77	37	16	22	23	10	14
M+PXYLENE	8.3	3.5	5.6	2.89	2.74	2.54	106	63	73	66	39	45
244MC8	1.1	0.3	0.5	0.38	0.21	0.21	15	5	6	9	3	4
O XYLENE	2.6	1.2	1.8	0.90	0.91	0.83	33	21	24	21	13	15
N NONANE	0.7	0.1	0.3	0.25	0.11	0.12	10	3	4	6	2	2
IPRBENZENE	1.3	0.1	0.2	0.45	0.11	0.09	17	2	3	10	2	2
NPRBENZENE	0.4	0.1	0.1	0.14	0.05	0.06	5	1	2	3	1	1
1M3ETBENZ	1.4	0.6	1.0	0.47	0.48	0.44	18	11	13	11	7	8
135MEBENZ	0.5	0.2	0.3	0.16	0.16	0.15	6	4	4	4	2	3
1M2ETBENZ	0.5	0.1	0.2	0.16	0.11	0.09	6	2	3	4	2	2
124MBENZ	1.0	0.6	0.8	0.36	0.48	0.38	13	11	11	8	7	7
SBUBENZENE	1.0	0.3	0.2	0.34	0.21	0.09	13	5	3	8	3	2
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.1	0.1	0.1	0.05	0.05	0.06	2	1	2	1	1	1
INDANE	0.1	0.0	0.0	0.02	0.00	0.00	1	0	0	1	0	0
13EBENZENE	0.1	0.0	0.1	0.02	0.00	0.03	1	0	1	1	0	1
NBUBENZENE	0.0	0.1	0.1	0.00	0.05	0.03	0	1	1	0	1	1
1M3PRBENZ	0.0	0.1	0.1	0.00	0.11	0.03	0	2	1	0	2	1
UNKNOWNS	11.5	3.0	5.3	4.01	2.36	2.42	149	55	70	93	34	43

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 21103
DATE RUN: 11 10 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: SWARTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	361.2	171.3	338.9
GC PPMC	538.9	292.3	434.4

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
MAJOR COMPONENTS												
METHANE	16.3	13.9	18.1	3.03	4.76	4.17	142	162	183	88	101	114
SATURATES	236.7	105.8	186.9	43.93	36.20	43.03	1849	1104	1694	1149	686	1053
OLEFINS	73.4	44.2	69.3	13.63	15.11	15.95	560	450	613	348	280	381
ACETYLENE	19.5	13.9	19.2	3.61	4.76	4.42	138	132	158	86	82	98
NAPTHENES	14.2	5.1	10.0	2.63	1.75	2.30	108	52	88	67	32	55
AROMATICS	123.4	77.2	94.0	22.90	26.42	21.64	884	739	781	550	459	486
BENZENE	15.4	10.4	14.1	2.86	3.56	3.24	109	99	116	68	61	72
TOLUENE	52.3	30.8	38.6	9.71	10.52	8.88	375	294	320	233	183	199
C8+AROM	55.7	36.1	41.4	10.33	12.34	9.52	406	351	349	252	218	217
UNKNOWN	55.4	32.1	36.9	0.00	0.00	0.00	405	313	312	251	195	194
INDIVIDUAL COMPONENTS												
METHANE	16.3	13.9	18.1	3.03	4.76	4.17	142	162	183	88	101	114
ETHYLENE	19.7	14.5	19.1	3.66	4.97	4.41	151	148	169	94	92	105
ETHANE	2.3	1.6	2.1	0.44	0.53	0.49	19	17	20	12	11	13
ACETYLENE	17.9	13.9	19.2	3.31	4.76	4.42	126	132	158	79	82	98
C3 + C3=	21.6	12.7	19.1	4.01	4.33	4.41	165	129	169	103	80	105
C=C=C	1.3	0.5	1.0	0.24	0.17	0.23	10	5	8	6	3	5
METHACETYL	1.6	0.0	0.0	0.30	0.00	0.00	12	0	0	7	0	0
ISOBUTANE	2.1	0.9	2.9	0.38	0.32	0.67	16	10	27	10	6	17
B1 + IB	12.4	8.3	11.2	2.30	2.84	2.58	95	85	99	59	53	62
NC4 +B=1+3	8.8	4.4	10.9	1.62	1.52	2.51	69	47	100	43	29	62
TMUTENE-2	1.7	1.1	1.9	0.31	0.36	0.44	13	11	17	8	7	11
22MPROPANE	0.2	0.0	0.0	0.03	0.00	0.00	1	0	0	1	0	0
CBUTENE-2	1.4	0.6	1.4	0.27	0.21	0.32	11	6	12	7	4	8
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.5	0.2	0.5	0.06	0.09	0.11	3	3	4	2	2	3
ISOPENTANE	11.1	4.7	14.6	2.06	1.60	3.36	87	49	133	54	30	83
PENTENE-1	0.6	0.2	0.6	0.11	0.06	0.13	4	2	5	3	1	3
2MBUT-1	1.6	0.7	1.7	0.30	0.23	0.39	12	7	15	8	4	9
NPENTANE	2.3	1.0	2.8	0.42	0.34	0.65	18	10	26	11	7	16
2MB=1=3	0.8	0.7	0.8	0.15	0.26	0.19	6	7	7	4	5	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 21103
DATE RUN: 11 10 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
TPENT=2		1.4	0.7	1.8		0.27	0.23	0.41		11	7	16		7	4	10
CISPENT-2		0.6	0.2	0.8		0.12	0.09	0.19		5	3	7		3	2	4
2MBUT-2		2.9	1.4	3.5		0.54	0.49	0.81		22	15	31		14	9	19
22MBUTANE		0.0	0.0	1.0		0.00	0.00	0.24		0	0	9		0	0	6
CYPENTENE		0.5	0.2	0.5		0.08	0.06	0.11		3	2	4		2	1	2
3MPENTENE		0.8	0.1	0.3		0.15	0.04	0.07		6	1	3		4	1	2
CYPENTANE		0.9	0.2	0.4		0.17	0.06	0.09		7	2	4		4	1	2
23MBUTANE		4.1	1.6	3.7		0.76	0.53	0.84		32	16	33		20	10	21
2MPENTANE		7.0	3.9	8.5		1.30	1.34	1.96		55	41	77		34	25	48
3MPENTANE		4.5	1.9	4.3		0.84	0.66	1.00		35	20	39		22	13	24
HEXENE-1		1.1	0.5	1.2		0.21	0.17	0.28		9	5	11		5	3	7
N HEXANE		3.0	1.2	2.6		0.56	0.41	0.60		24	12	24		15	8	15
TC6=3=2		2.4	0.9	2.2		0.45	0.32	0.51		18	10	20		11	6	12
CC6=3		0.7	0.1	0.6		0.14	0.02	0.15		6	1	6		4	0	4
2MPENTENE2		1.3	0.4	1.0		0.23	0.15	0.24		10	4	9		6	3	6
MCYP43M2C5		4.8	2.0	4.1		0.89	0.68	0.93		37	20	36		23	13	22
24MPENTANE		7.4	3.0	6.2		1.38	1.02	1.43		58	31	56		36	19	35
BENZENE		15.4	10.4	14.1		2.86	3.56	3.24		109	99	116		68	61	72
CYHEXANE		1.5	0.0	1.3		0.29	0.00	0.29		12	0	11		7	0	7
2MC6+23MC5		25.0	11.0	18.7		4.64	3.76	4.30		195	114	169		121	71	105
24MHEXANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
3MHEXANE		7.2	3.2	5.3		1.33	1.09	1.23		56	33	48		35	21	30
224MPENTAN		47.6	21.8	34.7		8.84	7.47	7.98		370	227	312		230	141	194
NHEPTANE		7.7	3.6	5.4		1.42	1.24	1.24		60	38	49		37	23	30
MCYHEXANE		4.2	1.8	2.7		0.78	0.62	0.63		32	18	24		20	11	15
25MHEXANE		8.7	4.2	6.1		1.61	1.45	1.42		68	44	55		42	27	34
24MC6+233M		5.6	2.2	3.6		1.04	0.77	0.83		44	23	32		27	14	20
234MC5		33.0	14.5	21.9		6.12	4.95	5.03		256	150	197		159	93	122
TOLUENE		52.3	30.8	38.6		9.71	10.52	8.88		375	294	320		233	183	199
23MC6+4MC7		9.3	4.2	6.2		1.73	1.43	1.43		72	43	56		45	27	35

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 21103
DATE RUN: 11 10 77
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
34MHEXANE	8.5	3.7	5.6	1.58	1.26	1.30	66	38	51	41	24	31
3MHEPTANE	8.4	3.2	5.4	1.55	1.11	1.24	65	34	49	40	21	30
255MC6	10.5	4.4	6.9	1.94	1.49	1.59	81	45	62	50	28	39
N OCTANE	4.1	1.6	2.5	0.75	0.55	0.57	32	17	22	20	10	14
223MC6	1.8	0.6	0.9	0.34	0.21	0.21	14	6	8	9	4	5
ETCYHEXANE	2.7	1.1	1.5	0.51	0.38	0.35	21	11	13	13	7	8
ET BENZENE	6.1	4.2	5.1	1.50	1.45	1.17	58	41	43	36	25	27
M+PXYLENE	23.0	12.7	14.7	4.27	4.33	3.38	166	122	123	103	76	76
2+4MC8	3.8	1.9	2.3	0.71	0.66	0.53	30	20	21	18	12	13
O XYLENE	8.1	4.5	5.0	1.51	1.54	1.16	59	43	42	36	27	26
N NONANE	2.6	1.2	1.3	0.49	0.41	0.31	20	12	12	13	8	7
IPRBENZENE	2.1	1.1	1.2	0.38	0.38	0.28	15	11	10	9	7	6
NPRBENZENE	1.0	0.9	1.0	0.18	0.32	0.23	7	9	8	4	6	5
1M3ETBENZ	3.8	2.8	3.1	0.70	0.96	0.71	27	27	26	17	17	16
135MEBENZ	1.2	0.9	1.1	0.22	0.32	0.25	9	9	9	5	6	6
1M2ETBENZ	2.0	1.5	1.6	0.37	0.51	0.37	15	15	14	9	9	9
124MBENZ	2.7	2.7	3.1	0.51	0.92	0.72	20	26	26	12	16	16
SBUBENZENE	2.7	3.0	3.2	0.51	1.02	0.73	20	29	27	12	18	17
N DECANE	0.1	0.2	0.2	0.02	0.06	0.05	1	2	2	1	1	1
123MBENZ	0.2	0.4	0.3	0.04	0.13	0.08	2	4	3	1	2	2
INDANE	0.2	0.2	0.3	0.03	0.06	0.07	1	2	2	1	1	1
13EBENZENE	0.1	0.1	0.0	0.02	0.04	0.00	1	1	0	1	1	0
NBUBENZENE	0.0	0.1	0.1	0.00	0.02	0.03	0	1	1	0	0	1
1M3PRBENZ	0.5	0.9	1.4	0.08	0.32	0.33	3	9	12	2	6	8
UNKNOWNS	55.4	32.1	36.9	10.28	10.99	8.49	405	313	312	251	195	194

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 21111
DATE RUN: 11 04 77 AIR CONDITIONER USED
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: G S MYER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	299.7	185.0	299.7
GC PPMC	263.8	162.5	258.9

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	18.8	15.6	19.8	7.11	9.62	7.65	277	349	300	172	217	186
SATURATES	90.7	42.9	89.6	34.38	26.38	34.61	1200	857	1214	746	533	754
OLEFINS	77.6	52.5	75.1	29.40	32.31	29.02	1002	1026	994	623	637	618
ACETYLENE	19.1	14.0	20.3	7.25	8.68	7.84	230	254	249	143	158	155
NAPTHENES	3.5	1.7	3.6	1.33	1.06	1.40	45	33	48	28	21	30
AROMATICS	47.2	32.4	44.2	17.88	19.93	17.09	572	594	550	356	369	342
BENZENE	11.2	8.1	11.1	4.24	4.99	4.28	134	147	136	83	91	85
TOLUENE	16.6	10.8	15.8	6.28	6.66	6.10	201	198	196	125	123	122
C8+AROM	19.4	13.5	17.4	7.35	8.28	6.70	239	251	219	149	156	136
UNKNOWN	7.0	3.4	6.2	0.00	0.00	0.00	87	64	79	54	40	49
INDIVIDUAL COMPONENTS												
METHANE	18.8	15.6	19.8	7.11	9.62	7.65	277	349	300	172	217	186
ETHYLENE	23.5	16.8	21.0	8.89	10.31	8.11	303	327	278	188	203	173
ETHANE	2.9	1.8	2.4	1.09	1.14	0.94	40	39	35	25	24	22
ACETYLENE	18.6	14.0	19.7	7.04	8.60	7.60	223	254	242	138	158	150
C3 + C3=	24.2	17.1	22.4	9.18	10.55	8.66	313	335	297	194	208	184
C=C=C	1.0	0.9	1.2	0.38	0.53	0.46	12	16	15	8	10	9
METHACETYL	0.6	0.0	0.6	0.21	0.00	0.24	7	0	8	4	0	5
ISOBUTANE	1.7	1.6	3.4	0.64	0.97	1.33	23	32	47	14	20	29
B1 + IB	14.6	9.2	12.5	5.52	5.64	4.82	188	179	165	117	111	103
NC4 +B=1=3	7.6	5.3	12.0	2.89	3.25	4.62	102	107	164	63	66	102
TBUTENE-2	1.8	1.3	2.0	0.69	0.77	0.77	23	24	27	15	15	16
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.3	0.8	1.6	0.50	0.49	0.61	17	15	21	11	10	13
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.4	0.3	0.5	0.17	0.16	0.19	6	5	7	4	3	4
ISOPENTANE	6.3	5.7	15.1	3.15	3.49	5.83	111	114	206	69	71	128
PENTENE-1	0.4	0.2	0.6	0.17	0.12	0.24	6	4	8	4	2	5
2MBUT-1	1.3	0.7	1.7	0.50	0.45	0.65	17	14	22	11	9	14
NPENTANE	1.8	1.2	2.8	0.66	0.73	1.06	23	24	38	14	15	23
2MB=1=3	0.6	0.3	0.3	0.21	0.20	0.10	7	6	3	4	4	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 21111
DATE RUN: 11 04 77 AIR CONDITIONER USED
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: G S MYER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.1	0.7	1.6	0.40	0.41	0.61	14	13	21	9	8	13
CISPENT-2	0.4	0.3	0.8	0.17	0.16	0.29	6	5	10	4	3	6
2MBUT-2	2.4	1.5	3.1	0.90	0.89	1.19	31	28	41	19	18	25
22MBUTANE	0.3	0.3	0.3	0.12	0.16	0.10	4	5	3	3	3	2
CYPENTENE	0.2	0.1	0.3	0.07	0.08	0.12	2	3	4	1	2	3
3MPENTENE	2.1	1.1	3.2	0.78	0.69	1.23	27	22	42	17	14	26
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	3.9	2.9	6.6	1.47	1.79	2.54	51	56	89	32	36	55
2MPENTANE	2.4	1.4	2.9	0.90	0.85	1.11	31	28	39	20	17	24
3MPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
HEXENE-1	0.7	0.3	0.6	0.26	0.16	0.24	9	5	8	6	3	5
N HEXANE	1.3	0.7	1.6	0.47	0.41	0.61	17	13	21	10	8	13
TC6=3=2	1.1	0.7	1.2	0.40	0.45	0.46	14	14	16	9	9	10
CC6=3	0.1	0.1	0.2	0.05	0.08	0.07	2	3	2	1	2	2
2MPENTENE2	0.4	0.3	0.5	0.17	0.16	0.19	6	5	7	4	3	4
MCYP43M2C5	1.8	1.1	2.1	0.69	0.65	0.82	23	21	28	15	13	18
24MPENTANE	2.9	1.6	3.3	1.11	0.97	1.28	39	32	45	24	20	28
BENZENE	11.2	8.1	11.1	4.24	4.99	4.28	134	147	136	83	91	85
CYHEXANE	0.5	0.1	0.5	0.19	0.08	0.19	6	3	7	4	2	4
2MC6+23MC5	6.9	3.6	7.3	2.63	2.23	2.81	92	72	98	57	45	61
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	19.4	1.1	2.1	7.35	0.69	0.80	256	22	28	159	14	17
224MPENTAN	13.4	7.1	13.7	5.10	4.34	5.28	177	140	184	110	87	114
NHEPTANE	1.4	0.7	1.6	0.55	0.45	0.63	19	14	22	12	9	14
MCYHEXANE	0.8	0.4	0.8	0.31	0.24	0.31	11	8	11	7	5	7
25MHEXANE	1.6	1.1	2.0	0.59	0.65	0.77	21	21	27	13	13	17
24MC6+233M	1.5	0.7	1.3	0.57	0.41	0.48	20	13	17	12	8	10
234MC5	5.3	2.3	4.6	2.02	1.42	1.79	70	46	62	43	29	39
TOLUENE	16.6	10.8	15.8	6.28	6.66	6.10	201	198	196	125	123	122
23MC6+4MC7	1.7	0.9	1.5	0.64	0.53	0.58	22	17	20	14	11	13

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 21111
DATE RUN: 11 04 77 AIR CONDITIONER USED
CAR: 1972 CHEVROLET IMPALA VIN: 1NC9H2J273821 DRIVER: G S HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
3+4MHEXANE	1.4	0.7	1.3	0.55	0.45	0.48	19	14	17	12	9	10
3MHEPTANE	1.3	0.7	1.1	0.47	0.41	0.41	16	13	14	10	8	9
255MC6	1.8	0.9	1.5	0.66	0.53	0.58	23	17	20	14	11	13
N OCTANE	0.5	0.3	0.4	0.19	0.16	0.17	7	5	6	4	3	4
223MC6	0.1	0.1	0.1	0.05	0.04	0.05	2	1	2	1	1	1
ETCYHEXANE	0.4	0.1	0.2	0.14	0.08	0.07	5	3	2	3	2	2
ET BENZENE	2.6	1.3	1.8	1.00	0.81	0.68	32	24	22	20	15	14
M+PXYLENE	7.5	4.9	6.1	2.84	3.00	2.37	92	90	77	57	56	48
2+4MC8	0.8	0.3	0.6	0.28	0.20	0.22	10	7	8	6	4	5
O XYLENE	2.6	1.7	2.1	0.97	1.06	0.80	31	32	26	19	20	16
N NONANE	0.4	0.2	0.3	0.17	0.12	0.12	6	4	4	4	2	3
1PRBENZENE	0.3	0.2	0.3	0.12	0.12	0.10	4	4	3	2	2	2
NPRBENZENE	0.3	0.2	0.3	0.12	0.12	0.10	4	4	3	2	2	2
1M3ETBENZ	1.6	1.4	1.9	0.59	0.85	0.73	19	26	24	12	16	15
135MEBENZ	0.4	0.5	0.8	0.17	0.28	0.29	5	9	9	3	5	6
1M2ETBENZ	0.4	0.3	0.4	0.14	0.16	0.17	5	5	6	3	3	3
124MBENZ	1.4	1.6	2.5	0.52	0.97	0.97	17	29	32	11	18	20
SBUBENZENE	1.4	0.7	0.4	0.55	0.41	0.17	18	12	6	11	8	3
N DECANE	0.1	0.0	0.0	0.05	0.00	0.00	2	0	0	1	0	0
123MBENZ	0.1	0.2	0.4	0.05	0.12	0.15	2	4	5	1	2	3
INDANE	0.1	0.1	0.1	0.02	0.04	0.02	1	1	1	0	1	0
13EBENZENE	0.1	0.1	0.1	0.05	0.08	0.02	2	2	1	1	2	0
NBUBENZENE	0.4	0.3	0.1	0.17	0.16	0.05	5	5	2	3	3	1
1M3PRBENZ	0.1	0.1	0.3	0.05	0.08	0.10	2	2	3	1	2	2
UNKNOWNS	7.0	3.4	6.2	2.66	2.11	2.40	87	64	79	54	40	49

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 21113
DATE RUN: 11 09 77 AIR CONDITIONER USED
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273R21 DRIVER: SWARTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	331.7	215.5	310.1
GC PPMC	1086.0	613.3	687.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	26.3	14.9	22.4	2.42	2.43	3.26	105	107	133	66	66	83
SATURATES	409.6	211.3	318.6	37.71	34.45	46.35	1471	1356	1694	914	843	1053
OLEFINS	88.2	53.2	86.3	8.12	8.67	12.55	309	333	448	192	207	278
ACETYLENE	20.2	13.3	22.6	1.86	2.17	3.29	66	77	109	41	48	68
NAPTHENES	25.2	12.9	18.9	2.32	2.10	2.75	69	81	98	55	50	61
AROMATICS	264.2	142.2	131.2	24.33	23.18	19.09	870	837	640	541	520	398
BENZENE	20.7	12.3	17.7	1.91	2.01	2.58	67	72	85	42	45	53
TOLUENE	70.7	43.3	58.3	6.51	7.07	8.48	233	255	284	145	158	177
C8+AROM	172.8	86.5	55.2	15.91	14.10	8.04	578	517	274	360	322	170
UNKNOWN	252.2	165.6	67.4	0.00	0.00	0.00	847	993	434	526	617	270
INDIVIDUAL COMPONENTS												
METHANE	26.3	14.9	22.4	2.42	2.43	3.26	105	107	133	66	66	83
ETHYLENE	20.5	14.7	20.5	1.88	2.40	2.98	72	92	106	45	57	66
ETHANE	4.8	1.6	2.2	0.44	0.26	0.33	18	11	12	11	7	8
ACETYLENE	20.2	13.3	21.6	1.86	2.17	3.14	66	77	104	41	48	65
C3 + C3=	24.8	13.5	21.1	2.09	2.20	3.06	80	85	109	50	53	68
C=C=C	1.2	0.5	1.2	0.11	0.08	0.17	4	3	6	3	2	4
METHACETYL	0.0	0.0	1.1	0.00	0.00	0.15	0	0	5	0	0	3
ISOBUTANE	2.4	1.0	2.6	0.22	0.16	0.38	9	7	14	5	4	9
B1 + IB	12.7	9.4	14.6	1.17	1.53	2.13	44	59	76	28	36	47
NC4 +B=1=3	9.0	5.8	10.8	0.83	0.94	1.56	33	37	58	20	23	36
TBUTENE-2	1.9	1.2	2.0	0.18	0.20	0.29	7	8	10	4	5	6
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.4	0.8	1.6	0.13	0.14	0.23	5	5	8	3	3	5
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.5	0.3	0.5	0.05	0.05	0.07	2	2	3	1	1	2
ISOPENTANE	17.1	9.5	17.7	1.57	1.55	2.58	62	61	95	38	38	59
PENTENE-1	0.8	0.4	0.6	0.07	0.07	0.12	3	3	4	2	2	3
2MBUT-1	2.2	1.2	2.2	0.21	0.20	0.32	8	8	11	5	5	7
NPENTANE	4.3	2.3	3.9	0.39	0.37	0.56	15	15	21	10	9	13
2MB=1=3	0.6	0.7	0.5	0.06	0.12	0.07	2	4	3	1	3	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 21113
DATE RUN: 11 09 77 AIR CONDITIONER USED
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVEN: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	2.5	1.4	2.5	0.23	0.23	0.36	9	9	13	6	6	8
C1SPENT-2	1.3	0.7	1.3	0.12	0.11	0.19	5	4	7	3	3	4
2MBUT-2	5.7	1.3	5.2	0.52	0.21	0.75	20	8	27	12	5	17
22MBUTANE	0.6	0.0	0.4	0.06	0.00	0.06	2	0	2	1	0	1
CYPENTENE	0.9	0.5	1.0	0.09	0.08	0.15	3	3	5	2	2	3
3MPENTENE	0.6	0.3	1.7	0.06	0.05	0.24	2	2	9	1	1	5
CYPENTANE	0.9	0.5	1.1	0.09	0.08	0.15	3	3	6	2	2	3
23MBUTANE	8.0	4.1	6.9	0.73	0.67	1.00	29	26	37	18	16	23
2MPENTANE	17.5	9.2	13.1	1.61	1.50	1.91	63	59	70	39	37	43
3MPENTANE	10.1	5.2	8.1	0.93	0.85	1.18	36	33	43	23	21	27
HEXENE-1	2.9	1.3	1.9	0.26	0.21	0.28	10	8	10	6	5	6
N HEXANE	6.8	3.3	5.4	0.62	0.53	0.78	24	21	29	15	13	18
TC6=3,=2	5.1	2.7	4.3	0.47	0.43	0.62	18	17	22	11	10	14
CC6=3	1.4	0.8	1.4	0.13	0.13	0.20	5	5	7	3	3	5
2MPENTENE2	3.2	1.5	2.2	0.29	0.24	0.32	11	9	11	7	6	7
MCYP43M2C5	10.1	5.3	8.1	0.93	0.87	1.18	36	33	42	22	21	26
24MPENTANE	15.7	8.0	13.1	1.45	1.30	1.90	56	51	69	35	32	43
BENZENE	20.7	12.3	17.7	1.91	2.01	2.58	67	72	85	42	45	53
CYHEXANE	3.5	1.6	2.3	0.32	0.26	0.33	12	10	12	8	6	7
2MC6+23MC5	51.3	25.2	38.3	4.73	4.11	5.57	184	161	203	114	100	126
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	14.8	7.0	10.6	1.36	1.14	1.55	53	45	56	33	28	35
224MPENTAN	84.8	44.1	67.0	7.81	7.19	9.76	303	281	355	188	175	220
NHEPTANE	13.7	7.2	10.3	1.26	1.18	1.50	49	46	55	31	29	34
MCYHEXANE	7.3	3.6	5.2	0.67	0.59	0.75	26	23	27	16	14	17
25MHEXANE	14.5	7.5	11.0	1.34	1.22	1.60	52	48	58	32	30	36
24MC6+233M	9.9	4.7	6.9	0.91	0.77	1.01	35	30	37	22	19	23
234MC5	52.6	27.3	39.2	4.84	4.45	5.70	188	174	207	117	108	129
TOLUENE	70.7	43.3	58.3	6.51	7.07	8.48	233	255	284	145	158	177
23MC6+4MC7	13.9	7.4	10.4	1.28	1.20	1.52	49	47	55	31	29	34

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 21113
DATE RUN: 11 09 77 AIR CONDITIONER USED
CAR: 1972 CHEVROLET IMPALA VIN: 1MC9H2J273821 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
3&4MHEXANE	12.6	6.6	9.4	1.16	1.08	1.36	45	42	49	28	26	31
3MHEPTANE	12.1	6.3	8.9	1.12	1.03	1.29	43	40	47	27	25	29
255MC6	15.2	8.3	11.6	1.40	1.35	1.69	54	53	61	34	33	38
N OCTANE	5.8	3.3	4.0	0.54	0.53	0.59	21	21	21	13	13	13
223MC6	2.2	1.2	1.5	0.21	0.19	0.22	8	8	8	5	5	5
ETCYHEXANE	3.4	1.8	2.2	0.31	0.30	0.33	12	12	12	7	7	7
ET BENZENE	9.9	6.2	7.2	0.91	1.01	1.04	33	37	35	20	23	22
M+PXYLENE	27.0	16.7	19.2	2.48	2.72	2.79	90	99	94	56	61	59
244MC8	4.7	2.8	3.2	0.44	0.46	0.47	17	18	17	10	11	11
O XYLENE	9.4	5.9	6.5	0.87	0.96	0.95	31	35	32	19	22	20
N NONANE	3.4	1.8	1.8	0.31	0.29	0.26	12	11	9	8	7	6
IPRBENZENE	9.4	3.5	1.8	0.86	0.57	0.27	31	21	9	19	13	6
NPRBENZENE	1.9	1.6	1.3	0.17	0.29	0.20	6	11	7	4	7	4
1M3ETBENZ	5.2	4.6	3.8	0.48	0.74	0.55	17	27	19	11	17	12
135MEBENZ	2.1	2.1	1.5	0.19	0.34	0.21	7	12	7	4	8	4
1M2ETBENZ	3.4	2.5	2.0	0.31	0.41	0.29	11	15	10	7	9	6
124MBENZ	4.8	4.9	3.8	0.45	0.79	0.55	16	29	19	10	18	12
SBUBENZENE	97.1	35.2	5.3	8.94	5.74	0.77	326	211	26	203	131	16
N DECANE	1.4	0.7	0.2	0.13	0.12	0.02	5	5	1	3	3	1
123MBENZ	0.4	0.8	0.4	0.03	0.14	0.07	1	5	2	1	3	1
INDANE	0.5	0.5	0.4	0.05	0.08	0.06	2	3	2	1	2	1
13EDBENZENE	0.2	0.1	0.1	0.02	0.02	0.01	1	1	0	0	0	0
NBUBENZENE	1.1	1.8	1.8	0.10	0.30	0.26	4	11	9	2	7	6
1M3PRBENZ	0.5	0.0	0.2	0.05	0.00	0.02	2	0	1	1	0	1
UNKNOWNS	252.2	165.6	87.4	23.23	27.01	12.71	847	993	434	526	617	270

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30001
DATE RUN: 01 05 77
CAR: 1974 CHEVROLET IMPALA VIN: 1169M4Y105643 DRIVER: L J WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 0

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	2858.2	98.2	244.6
GC PPMC	2486.0	129.1	225.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	255.9	4.6	8.1	10.29	3.73	3.58	3806	64	109	2365	40	68
SATURATES	881.8	41.7	100.4	35.44	32.31	44.58	11730	499	1219	7290	310	758
OLEFINS	432.2	26.7	48.9	17.39	20.72	21.72	5621	312	580	3493	194	360
ACETYLENE	342.5	4.2	6.6	13.78	3.26	2.94	4133	46	73	2569	28	45
NAPTHENES	49.6	0.9	4.7	2.00	0.73	2.10	645	11	56	401	7	35
AROMATICS	349.9	34.2	40.0	14.08	26.52	17.74	4273	375	445	2656	233	277
BENZENE	68.6	2.6	5.1	2.76	2.20	2.27	828	31	56	515	19	35
TOLUENE	82.2	4.6	10.6	3.30	3.53	4.45	1003	50	112	624	31	69
C8+ARUM	199.1	26.8	24.8	8.01	20.79	11.03	2472	299	281	1536	186	175
UNKNOWN	174.8	16.4	16.5	0.00	0.00	0.00	2176	183	187	1352	114	116
INDIVIDUAL COMPONENTS												
METHANE	255.9	4.6	8.1	10.29	3.73	3.58	3806	64	109	2365	40	68
ETHYLENE	113.9	8.4	12.9	4.58	6.53	5.71	1461	98	152	920	61	95
ETHANE	9.2	1.1	1.6	0.37	0.87	0.70	128	14	20	80	9	12
ACETYLENE	342.5	4.2	6.6	13.78	3.26	2.94	4133	46	73	2569	28	45
C3 + C3=	108.2	7.5	12.5	4.35	5.80	5.54	1407	87	148	874	54	92
C=C=C	16.8	0.1	0.2	0.68	0.07	0.08	208	1	2	130	1	1
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	14.4	0.9	2.5	0.58	0.67	1.09	193	10	30	120	6	19
B1 + 1B	60.0	4.3	7.8	2.41	3.33	3.44	781	50	92	485	31	57
NC4 +B=1=3	81.7	5.7	12.5	3.29	4.06	5.54	1101	63	153	684	39	95
TBUTENE-2	15.0	0.8	1.8	0.60	0.60	0.78	195	9	21	121	6	13
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	11.9	0.5	1.3	0.48	0.40	0.59	154	6	16	96	4	10
B=1=2	1.6	0.0	0.0	0.06	0.00	0.00	20	0	0	12	0	0
3MB1	4.1	0.3	0.6	0.16	0.27	0.25	53	4	7	33	2	4
ISOPENTANE	120.6	6.5	17.8	4.85	5.06	7.92	1613	79	218	1003	49	135
PENTENE-1	4.8	0.2	0.6	0.19	0.13	0.25	62	2	7	39	1	4
2MBUT-1	12.3	0.7	1.6	0.50	0.53	0.70	160	8	19	100	5	12
NPENTANE	15.2	0.9	2.1	0.61	0.73	0.95	203	11	26	126	7	16
2MB=1=3	3.6	0.1	0.0	0.14	0.07	0.00	45	1	0	28	1	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30001
DATE RUN: 01 05 77
CAR: 1976 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT-2	11.9	0.6	1.5	0.48	0.47	0.64	155	7	17	96	4	11
CISPENT-2	6.4	0.2	0.8	0.26	0.13	0.34	84	2	9	52	1	6
2MBUT-2	23.1	1.2	3.0	0.93	0.93	1.34	300	14	36	187	9	22
22MBUTANE	0.5	0.0	0.1	0.02	0.00	0.03	7	0	1	4	0	0
CYPENTENE	4.4	0.2	0.4	0.18	0.13	0.17	56	2	4	35	1	3
3MPENTENE	2.6	0.1	0.3	0.10	0.07	0.14	33	1	4	21	1	2
CYPENTANE	2.2	0.2	0.4	0.09	0.13	0.17	28	2	4	18	1	3
23MBUTANE	17.9	0.8	2.5	0.72	0.60	1.12	239	9	31	148	6	19
2MPENTANE	43.4	4.5	6.4	1.74	3.46	2.83	578	53	77	359	33	48
3MPENTANE	25.9	1.2	3.4	1.04	0.93	1.51	345	14	41	214	9	26
HEXENE-1	7.1	0.3	0.9	0.29	0.20	0.39	93	3	10	58	2	7
N HEXANE	12.8	0.5	1.3	0.51	0.40	0.59	170	6	16	106	4	10
TC6=3=2	12.8	0.3	1.8	0.51	0.27	0.78	166	4	21	103	2	13
CC6=3	3.6	0.3	0.6	0.15	0.20	0.25	47	3	7	29	2	4
2MPENTENE2	8.2	0.8	0.7	0.33	0.60	0.31	106	9	8	66	6	5
MCYP43M2C5	21.5	0.1	2.4	0.86	0.07	1.06	280	1	28	174	1	18
24MPENTANE	35.6	1.5	3.8	1.44	1.13	1.71	475	17	47	295	11	29
BENZENE	68.6	2.8	5.1	2.76	2.20	2.27	828	31	56	515	19	35
CYHEXANE	6.6	0.2	0.4	0.27	0.13	0.20	86	2	5	54	1	3
2MC6+23MC5	113.2	4.0	10.2	4.55	3.06	4.53	1503	47	124	934	29	77
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	25.5	0.8	1.9	1.02	0.60	0.84	338	9	23	210	6	14
224MPENTAN	145.0	6.7	16.5	5.63	5.20	7.30	1919	80	199	1193	50	123
NHEPTANE	18.4	0.6	1.6	0.74	0.47	0.70	244	7	19	152	4	12
MCYHEXANE	13.1	0.4	1.1	0.53	0.33	0.50	170	5	13	106	3	8
25MHEXANE	11.6	0.5	1.3	0.47	0.40	0.59	154	6	16	96	4	10
24MC6+23DM	13.1	0.6	1.5	0.53	0.47	0.64	174	7	17	108	4	11
234MC5	70.2	1.9	5.0	2.82	1.47	2.24	929	22	61	577	14	38
TOLUENE	82.2	4.6	10.0	3.30	3.53	4.45	1003	50	112	624	31	69
23MC6+4MC7	19.4	0.5	1.8	0.78	0.40	0.78	257	6	21	160	4	13

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30001
DATE RUN: 01 05 77
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	17.0	0.4	1.4	0.69	0.33	0.62	225	5	17	140	3	10
3MHEPTANE	18.3	0.5	1.3	0.74	0.40	0.59	242	6	16	151	4	10
255MC6	18.7	0.6	1.5	0.75	0.47	0.64	247	7	17	153	4	11
N OCTANE	7.7	0.2	0.5	0.31	0.13	0.22	101	2	6	63	1	4
223MC6	3.8	0.1	0.2	0.15	0.07	0.08	51	1	2	31	1	1
ETCYHEXANE	6.3	0.1	0.4	0.25	0.07	0.17	81	1	4	51	1	3
ET BENZENE	20.9	0.9	1.8	0.84	0.73	0.81	257	10	21	160	6	13
M+PXYLENE	66.6	4.1	6.6	2.68	3.20	2.91	819	46	74	509	28	46
2+4MC8	10.8	0.5	0.9	0.43	0.40	0.39	142	6	11	89	4	7
O XYLENE	25.8	1.9	2.6	1.04	1.47	1.15	317	21	29	197	13	18
N NONANE	10.2	0.5	0.8	0.41	0.40	0.36	135	6	10	84	4	6
IPRBENZENE	6.9	0.3	0.5	0.28	0.27	0.22	85	4	6	53	2	4
NPRBENZENE	4.4	0.4	0.4	0.18	0.33	0.17	54	5	4	34	3	3
1M3ETBENZ	22.6	4.0	3.0	0.91	3.06	1.32	280	44	33	174	27	21
135MEBENZ	8.8	1.8	1.1	0.35	1.40	0.50	109	20	13	68	12	8
1M2ETBENZ	10.8	1.5	1.1	0.43	1.20	0.50	133	17	13	83	11	8
124MBENZ	22.3	7.2	4.1	0.90	5.60	1.82	276	80	46	171	50	29
SBUBENZENE	2.3	0.7	0.4	0.09	0.53	0.17	29	8	4	18	5	3
N DECANE	0.9	0.2	0.1	0.04	0.13	0.06	12	2	2	7	1	1
123MBENZ	3.1	0.2	0.9	0.12	0.13	0.42	38	2	11	24	1	7
INDANE	1.1	0.3	0.1	0.05	0.27	0.06	14	4	1	9	2	1
13EBENZENE	0.6	0.3	0.8	0.02	0.27	0.34	7	4	9	4	2	5
NBUBENZENE	0.8	1.2	1.3	0.03	0.93	0.56	10	13	14	6	8	9
1M3PRBENZ	2.3	1.8	0.2	0.09	1.40	0.08	29	20	2	18	13	1
UNKNOWNS	174.8	16.4	16.5	7.03	12.72	7.33	2176	183	187	1352	114	116

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30002
DATE RUN: 01 06 78
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: L J WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 0

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	2648.2	88.4	242.9
GC PPMC	1963.0	111.6	193.6

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	177.3	3.9	5.7	9.03	3.52	2.94	3094	53	88	1923	33	55
SATURATES	828.0	32.4	87.5	42.18	29.06	45.21	12932	394	1216	8038	245	756
OLEFINS	357.1	26.2	54.4	18.19	21.67	28.12	5447	287	739	3385	178	459
ACETYLENE	241.3	3.8	5.3	12.29	3.38	2.74	3417	41	67	2124	26	42
NAPTHENES	44.8	1.6	4.0	2.28	1.41	2.09	683	19	55	424	12	34
AROMATICS	200.3	32.8	26.3	10.20	29.42	13.56	2869	365	335	1783	227	208
BENZENE	53.8	2.5	4.2	2.74	2.25	2.15	761	28	52	473	17	33
TOLUENE	73.1	4.0	7.7	3.73	3.59	3.98	1048	45	98	651	28	61
C8+AROM	73.4	26.3	14.4	3.74	23.57	7.43	1069	298	186	664	185	116
UNKNOWN	114.2	12.9	10.3	0.00	0.00	0.00	1667	146	134	1036	91	83
INDIVIDUAL COMPONENTS												
METHANE	177.3	3.9	5.7	9.03	3.52	2.94	3094	53	88	1923	33	55
ETHYLENE	82.3	7.5	10.7	4.19	6.76	5.51	1255	89	145	780	56	90
ETHANE	8.5	0.9	1.2	0.43	0.84	0.62	139	12	18	86	7	11
ACETYLENE	241.3	3.8	5.3	12.29	3.38	2.74	3417	41	67	2124	26	42
C3 + C3=	90.1	6.8	12.0	4.59	6.12	6.19	1374	81	163	854	50	101
C=C=C	12.6	0.1	0.4	0.64	0.07	0.20	183	1	5	114	1	3
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	13.7	0.6	2.5	0.70	0.56	1.27	216	8	35	134	5	22
B1 + IB	48.2	4.0	6.6	2.46	3.59	3.39	735	47	89	457	29	55
NC4 +B=1=3	72.6	4.2	11.3	3.70	3.73	5.85	1147	51	159	713	32	99
TBUTENE-2	12.4	0.7	1.5	0.63	0.63	0.79	189	8	21	118	5	13
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	10.8	0.5	1.2	0.55	0.42	0.62	165	6	16	102	3	10
B=1=2	0.8	0.0	0.0	0.04	0.00	0.00	11	0	0	7	0	0
3MB1	3.7	0.3	0.5	0.19	0.28	0.25	57	4	7	35	2	4
ISOPENTANE	113.9	5.2	16.4	5.80	4.64	8.45	1787	63	228	1111	39	142
PENTENE-1	4.6	0.2	0.5	0.23	0.14	0.25	70	2	7	44	1	4
2MBUT-1	11.1	0.6	1.4	0.57	0.56	0.71	170	7	19	105	5	12
NPENTANE	14.7	0.8	2.8	0.75	0.70	1.02	231	10	28	143	6	17
2MB=1=3	2.0	0.2	0.0	0.10	0.14	0.00	30	2	0	19	1	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: J0002
DATE RUN: 01 06 78
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	11.4	0.5	12.6	0.58	0.49	6.50	175	7	171	108	4	106
CISPENT-2	6.1	0.2	0.7	0.31	0.14	0.34	94	2	9	58	1	6
2MBUT-2	21.4	1.0	2.5	1.09	0.91	1.30	326	12	34	202	8	21
22MBUTANE	0.1	0.0	0.1	0.00	0.00	0.03	1	0	1	1	0	0
CYPENTENE	3.3	0.1	0.3	0.17	0.07	0.17	48	1	4	30	1	3
3MPENTENE	4.5	0.1	0.2	0.23	0.07	0.11	69	1	3	43	1	2
CYPENTANE	2.8	0.1	0.2	0.14	0.07	0.08	43	1	2	27	1	1
23MBUTANE	18.6	0.9	2.2	0.95	0.84	1.13	291	11	30	181	7	19
2MPENTANE	43.6	1.8	4.8	2.22	1.62	2.49	681	22	67	423	14	42
3MPENTANE	25.5	1.1	2.9	1.30	0.99	1.50	398	13	40	248	8	25
HEXENE-1	7.4	0.3	0.8	0.37	0.28	0.40	112	4	10	70	2	6
N HEXANE	12.4	0.4	1.1	0.63	0.35	0.59	194	5	16	120	3	10
TC6=3,=2	13.3	0.6	1.5	0.68	0.56	0.79	203	7	21	126	5	13
CC6=3	3.8	0.2	0.5	0.20	0.21	0.25	59	3	7	36	2	4
2MPENTENE2	7.2	0.2	0.7	0.37	0.21	0.34	110	3	9	68	2	6
MCYP43M2C5	21.1	0.7	2.2	1.07	0.63	1.13	322	8	30	200	5	18
24MPENTANE	36.6	1.2	3.6	1.87	1.06	1.84	570	14	49	354	9	31
BENZENE	53.8	2.6	4.2	2.74	2.25	2.15	761	28	52	473	17	33
CYHEXANE	5.2	0.2	0.4	0.26	0.21	0.23	79	3	6	49	2	4
2MC6+23MC5	108.3	3.3	9.0	5.52	2.96	4.66	1686	40	125	1048	25	78
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	22.7	0.5	1.7	1.16	0.49	0.88	353	7	23	220	4	15
224MPENTAN	146.7	5.4	14.3	7.47	4.86	7.40	2277	65	198	1415	41	123
MHEPTANE	17.6	0.3	1.4	0.90	0.28	0.73	275	4	20	171	2	12
MCYHEXANE	11.7	0.4	1.0	0.60	0.35	0.51	178	5	13	111	3	8
25MHEXANE	12.4	0.4	1.1	0.63	0.35	0.57	193	5	15	120	3	9
24MC6+233M	13.6	0.5	1.3	0.69	0.49	0.68	211	7	18	131	4	11
234MC5	61.8	1.6	4.8	3.15	1.41	2.09	960	19	56	597	12	35
TOLUENE	73.1	4.0	7.7	3.73	3.59	3.98	1048	45	98	651	28	61
23MC6+4MC7	17.0	0.4	1.4	0.87	0.35	0.73	264	5	20	164	3	12

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30002
DATE RUN: 01 06 78
CAR: 1974 CHEVROLET IMPALA VIN: 1169M4Y105643 DRIVER: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	14.6	0.4	1.1	0.75	0.35	0.59	227	5	16	141	3	10
3MHEPTANE	15.5	0.5	1.1	0.79	0.42	0.57	240	6	15	149	4	9
255MC6	15.7	0.5	1.2	0.80	0.49	0.62	243	7	17	151	4	10
N OCTANE	5.9	0.2	0.4	0.30	0.21	0.20	92	3	5	57	2	3
223MC6	2.4	0.1	0.2	0.12	0.07	0.08	38	1	2	23	1	1
ETCYHEXANE	4.0	0.2	0.3	0.20	0.14	0.14	60	2	4	38	1	2
ET BENZENE	13.4	0.9	1.1	0.68	0.77	0.57	193	10	14	120	6	9
M+PXYLENE	10.4	4.1	4.0	0.53	3.66	2.09	150	46	52	93	28	32
244MC8	7.0	0.4	0.6	0.35	0.35	0.31	106	5	8	67	3	5
O XYLENE	15.9	2.0	1.6	0.81	1.76	0.82	229	22	20	142	14	13
N NONANE	6.4	0.5	0.5	0.33	0.49	0.28	99	7	8	62	4	5
IPRBENZENE	4.0	0.4	0.3	0.21	0.35	0.17	58	4	4	36	3	3
NPRBENZENE	1.9	0.5	0.2	0.10	0.49	0.11	28	6	3	17	4	2
1M3ETBENZ	9.1	4.1	1.6	0.46	3.66	0.85	132	46	21	82	29	13
135MEBENZ	2.9	1.8	0.7	0.15	1.62	0.34	43	20	8	27	13	5
1M2ETBENZ	4.9	1.6	0.7	0.25	1.48	0.37	71	19	9	44	12	6
124MBENZ	7.5	6.4	2.2	0.38	5.70	1.13	109	72	28	68	45	18
SBUBENZENE	0.8	0.6	0.2	0.04	0.56	0.11	11	7	3	7	4	2
N DECANE	0.3	0.2	0.1	0.01	0.14	0.03	4	2	1	2	1	0
123MBENZ	0.8	1.2	0.5	0.04	1.06	0.25	12	13	6	8	8	4
INDANE	0.3	0.2	0.1	0.02	0.21	0.03	5	3	1	3	2	0
13EBENZENE	0.1	0.2	0.1	0.01	0.21	0.06	2	3	1	1	2	1
NBUBENZENE	0.8	0.9	0.4	0.04	0.84	0.20	11	11	5	7	7	3
1M3PRBENZ	0.6	1.3	0.7	0.03	1.20	0.34	9	15	9	6	9	5
UNKNOWNS	114.2	12.9	10.3	5.82	11.54	5.34	1667	146	134	1036	91	83

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30201
DATE RUN: 01 09 78
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: SWARTZLANDER FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 20

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	3340.7	122.7	228.6
GC PPMC	2859.0	285.7	211.2

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	232.2	3.8	4.2	8.12	1.33	1.98	3460	24	50	2150	15	31
SATURATES	1240.6	137.4	106.4	43.39	48.09	50.47	16551	783	1129	10286	487	702
OLEFINS	465.5	47.8	41.9	16.28	16.72	19.86	6066	266	435	3770	165	270
ACETYLENE	350.9	4.3	4.7	12.27	1.51	2.23	4243	22	45	2637	14	28
NAPTHENES	63.3	7.0	5.0	2.21	2.45	2.35	825	39	51	513	24	32
AROMATICS	337.8	59.8	34.5	11.81	20.93	16.32	4133	313	336	2569	194	209
BENZENE	69.1	4.8	4.3	2.42	1.67	2.04	836	25	42	519	15	26
TOLUENE	93.9	12.3	9.6	3.28	4.30	4.55	1149	64	93	714	40	58
C8+AROM	174.8	42.7	20.6	6.11	14.96	9.73	2174	227	203	1351	141	126
UNKNOWN	168.7	25.6	14.6	0.00	0.00	0.00	2103	136	144	1307	85	90
INDIVIDUAL COMPONENTS												
METHANE	232.2	3.8	4.2	8.12	1.33	1.98	3460	24	50	2150	15	31
ETHYLENE	105.7	9.9	10.4	3.70	3.45	4.91	1378	55	108	856	34	67
ETHANE	11.4	1.3	1.0	0.40	0.45	0.49	159	8	11	99	5	7
ACETYLENE	344.2	4.3	4.7	12.04	1.51	2.23	4163	22	45	2587	14	28
C3 + C3=	108.0	10.2	9.7	3.78	3.57	4.61	1408	57	101	875	35	63
C=C=C	4.1	0.2	0.1	0.15	0.06	0.03	51	1	1	32	1	0
METHACETYL	6.6	0.0	0.0	0.23	0.00	0.00	82	0	0	51	0	0
ISOBUTANE	29.8	2.9	2.2	1.04	1.00	1.04	403	16	24	250	10	15
B1 + 1B	55.8	6.7	5.9	1.95	2.36	2.81	727	38	61	452	23	38
NC4 +B=1=3	130.9	16.3	12.4	4.58	5.69	5.89	1767	94	134	1098	58	83
TBUTENE-2	18.1	2.1	1.6	0.63	0.73	0.76	236	12	17	147	7	10
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	17.7	1.6	1.2	0.62	0.55	0.58	231	9	13	143	5	8
B=1=2	1.0	0.0	0.0	0.04	0.00	0.00	13	0	0	8	0	0
3MB1	6.3	0.7	0.5	0.22	0.24	0.24	82	4	5	51	2	3
ISOPENTANE	210.8	24.4	18.9	7.37	8.54	8.97	2826	140	202	1756	87	126
PENTENE-1	8.1	0.7	0.5	0.28	0.24	0.24	105	4	5	65	2	3
2MBUT-1	18.1	2.1	1.6	0.63	0.73	0.76	236	12	17	147	7	10
NPENTANE	26.7	3.1	2.5	0.93	1.09	1.19	356	18	27	223	11	17
2MB=1=3	0.9	0.3	0.0	0.03	0.09	0.00	11	1	0	7	1	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30201
DATE RUN: 01 09 78
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: SWARTZLANDER FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	19.8	2.1	1.6	0.69	0.73	0.76	258	12	17	160	7	10
CISPENT-2	10.7	1.0	0.8	0.37	0.33	0.37	139	5	8	86	3	5
2MBUT-2	34.0	3.9	3.2	1.19	1.36	1.49	444	22	33	276	13	20
22MBUTANE	0.9	0.0	0.0	0.03	0.00	0.00	11	0	0	7	0	0
CYPENTENE	5.4	0.5	0.4	0.19	0.18	0.18	68	3	4	42	2	2
3MPENTENE	4.8	0.3	0.3	0.17	0.12	0.12	62	2	3	39	1	2
CYPENTANE	4.8	0.7	0.3	0.17	0.24	0.15	62	4	3	39	2	2
23MBUTANE	33.4	3.3	2.4	1.17	1.15	1.16	445	19	26	277	12	16
2MPENTANE	69.0	8.5	7.9	2.41	2.97	3.75	920	48	84	572	30	52
3MPENTANE	38.9	4.6	3.7	1.36	1.61	1.74	519	26	39	323	16	24
HEXENE-1	12.1	1.3	1.0	0.42	0.45	0.46	157	7	10	98	4	6
N HEXANE	18.6	1.8	1.4	0.65	0.64	0.67	248	10	15	154	6	9
TC6=3,=2	18.7	2.4	1.9	0.65	0.85	0.88	243	13	19	151	8	12
CC6=3	5.5	0.8	0.6	0.19	0.27	0.27	72	4	6	44	3	4
2MPENTENE2	10.8	1.1	0.8	0.38	0.39	0.37	141	6	8	87	4	5
MCYP43M2C5	29.7	3.5	2.6	1.04	1.24	1.22	387	20	27	241	12	17
24MPENTANE	49.2	5.5	4.2	1.72	1.94	1.98	654	31	44	406	20	28
BENZENE	69.1	4.8	4.3	2.42	1.67	2.04	836	25	42	519	15	26
CYHEXANE	7.2	0.6	0.5	0.25	0.21	0.21	94	3	5	58	2	3
2MC6+23MC5	142.7	14.4	11.1	4.99	5.06	5.25	1897	82	117	1179	51	73
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	29.9	2.7	2.1	1.05	0.94	0.98	397	15	22	247	9	14
224MPENTAN	190.0	23.1	17.7	6.64	8.09	8.39	2520	131	187	1566	81	116
NHEPTANE	22.4	2.2	1.7	0.78	0.79	0.82	298	13	18	185	8	11
MCYHEXANE	15.7	1.6	1.2	0.55	0.58	0.58	204	9	13	127	6	8
25MHEXANE	16.3	1.8	1.3	0.57	0.64	0.61	217	10	14	135	6	8
24MC6+233M	18.4	2.1	1.7	0.64	0.73	0.79	244	12	18	152	7	11
234MC5	80.7	7.1	5.2	2.82	2.48	2.44	1070	40	54	665	25	34
TOLUENE	93.9	12.3	9.6	3.28	4.30	4.55	1149	64	93	714	40	58
23MC6+4MC7	23.0	2.4	1.9	0.80	0.85	0.88	305	14	20	190	9	12

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30201
DATE RUN: 01 09 78
CAR: 1974 CHEVROLET IMPALA VIN: 1169M4Y105643 DRIVER: SWARTZLANDER FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	20.0	1.9	1.5	0.70	0.67	0.70	265	11	16	165	7	10
3MHEPTANE	21.4	1.9	1.5	0.75	0.67	0.70	284	11	16	177	7	10
255MC6	21.7	2.1	1.5	0.76	0.73	0.73	287	12	16	178	7	10
N OCTANE	8.7	0.7	0.5	0.30	0.24	0.24	115	4	5	71	2	3
223MC6	3.5	0.3	0.2	0.12	0.09	0.09	47	1	2	29	1	1
ETCYHEXANE	6.0	0.5	0.4	0.21	0.18	0.18	78	3	4	48	2	2
ET BENZENE	19.8	2.5	1.5	0.69	0.86	0.70	244	13	15	151	8	9
M+PXYLENE	63.3	9.6	5.7	2.21	3.36	2.68	781	51	56	485	31	35
244MC8	11.1	1.4	0.8	0.39	0.48	0.40	147	8	9	91	5	5
O XYLENE	24.6	4.1	2.3	0.86	1.42	1.07	304	21	22	189	13	14
N NONANE	10.7	1.4	0.8	0.37	0.48	0.40	141	8	9	88	5	5
IPRBENZENE	7.0	1.0	0.5	0.25	0.33	0.24	87	5	5	54	3	3
NPRBENZENE	3.7	0.9	0.4	0.13	0.30	0.16	45	5	4	28	3	2
1M3ETBENZ	17.9	6.5	2.6	0.63	2.27	1.25	222	34	26	138	21	16
135MEBENZ	5.9	2.4	1.0	0.20	0.85	0.46	73	13	10	45	8	6
1M2ETBENZ	9.9	2.7	1.2	0.35	0.94	0.55	123	14	11	77	9	7
124MBENZ	14.8	7.7	3.0	0.52	2.70	1.40	184	41	29	114	25	18
SBUBENZENE	1.8	0.9	0.4	0.06	0.30	0.18	22	5	4	14	3	2
N DECANE	0.6	0.3	0.1	0.02	0.09	0.06	8	1	1	5	1	1
123MBENZ	1.8	1.4	0.5	0.06	0.48	0.24	23	7	5	14	5	3
INDANE	0.7	0.1	0.2	0.03	0.03	0.09	9	0	2	6	0	1
1JEBENZENE	0.4	0.2	0.1	0.01	0.06	0.03	5	1	1	3	1	0
NBUBENZENE	1.8	1.2	0.5	0.06	0.42	0.24	22	6	5	14	4	3
1M3PRBENZ	1.4	1.7	0.8	0.05	0.61	0.40	17	9	8	11	6	5
UNKNOWNS	168.7	25.6	14.6	5.90	8.96	6.89	2103	136	144	1307	85	90

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30202
DATE RUN: 01 10 76
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVEN: SWARTZLANDER FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 20

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	1848.9	91.6	246.6
GC PPMC	1695.0	135.1	242.1

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
MAJOR COMPONENTS												
METHANE	151.9	3.5	5.7	8.96	2.56	2.37	2181	45	75	1356	28	46
SATURATES	684.9	42.9	122.4	40.41	31.73	50.55	8805	495	1425	5473	307	886
OLEFINS	272.9	34.5	46.0	16.10	25.50	19.01	3427	388	524	2130	241	325
ACETYLENE	222.4	4.1	5.9	13.12	3.05	2.43	2592	43	62	1611	27	39
NAPTHENES	36.1	1.1	5.4	2.13	0.79	2.24	453	12	62	282	8	38
AROMATICS	224.1	34.8	38.8	13.22	25.75	16.01	2642	368	414	1642	229	257
BENZENE	42.9	2.9	5.2	2.53	2.14	2.14	501	30	55	311	19	34
TOLUENE	61.2	4.9	10.7	3.61	3.60	4.41	721	51	114	448	32	71
C8+AROM	120.0	27.0	22.9	7.08	20.01	9.47	1438	291	249	894	181	155
UNKNOWN	102.6	14.3	17.9	0.00	0.00	0.00	1233	155	195	766	96	121
INDIVIDUAL COMPONENTS												
METHANE	151.9	3.5	5.7	8.96	2.56	2.37	2181	45	75	1356	28	46
ETHYLENE	67.3	8.4	11.9	3.97	6.22	4.90	845	95	135	525	59	84
ETHANE	7.1	1.0	1.5	0.42	0.73	0.63	95	12	18	59	7	11
ACETYLENE	220.0	4.1	5.9	12.98	3.05	2.43	2563	43	62	1593	27	39
C3 + C3=	68.8	7.5	11.7	4.06	5.55	4.85	864	85	134	537	53	83
C=C=C	2.8	0.1	0.1	0.17	0.06	0.03	33	1	1	21	1	0
METHACETYL	2.5	0.0	0.0	0.15	0.00	0.00	30	0	0	18	0	0
ISOBUTANE	15.3	0.8	2.8	0.90	0.61	1.15	199	10	33	124	6	20
B1 + IB	35.6	4.5	7.4	2.10	3.29	3.05	447	50	84	278	31	52
NC4 +B=1=3	63.3	5.4	15.8	3.73	3.97	6.55	823	63	187	512	39	116
TBUTENE-2	8.8	0.8	2.0	0.52	0.61	0.83	111	9	23	69	6	14
22MPROPANE	0.4	0.0	0.0	0.03	0.00	0.00	6	0	0	3	0	0
CBUTENE-2	9.0	0.6	1.5	0.53	0.43	0.63	112	7	17	70	4	11
B=1=2	0.2	0.0	0.0	0.01	0.00	0.00	3	0	0	2	0	0
3MB1	2.7	0.3	0.6	0.16	0.24	0.26	34	4	7	21	2	4
ISOPENTANE	106.2	6.9	22.4	6.27	5.13	9.23	1372	80	262	853	50	163
PENTENE-1	3.7	0.2	0.6	0.22	0.18	0.26	46	3	7	29	2	4
2MBUT-1	9.3	0.7	1.8	0.55	0.55	0.76	117	8	21	73	5	13
NPENTANE	13.7	1.0	2.7	0.81	0.73	1.10	177	11	31	110	7	19
2MB=1=3	0.3	0.2	0.0	0.02	0.18	0.00	4	3	0	2	2	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30202
DATE RUN: 01 10 78
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: SWARTZLANDER FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT-2	9.8	6.6	1.8	0.58	4.88	0.73	123	74	20	76	46	13
CISPENT-2	5.3	0.2	0.9	0.31	0.18	0.37	66	3	10	41	2	6
2MBUT-2	18.1	1.3	0.3	1.07	0.98	0.13	228	15	4	142	9	2
22MBUTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTENE	2.5	0.2	0.4	0.15	0.12	0.18	31	2	5	19	1	3
3MPENTENE	1.9	0.1	0.3	0.11	0.06	0.13	23	1	4	15	1	2
CYPENTANE	2.7	0.1	0.3	0.16	0.06	0.13	34	1	4	21	1	2
23MBUTANE	15.5	1.1	2.8	0.92	0.79	1.15	200	12	32	124	8	20
2MPENTANE	38.9	3.2	8.6	2.30	2.38	3.55	500	37	100	311	23	62
3MPENTANE	21.8	1.3	4.1	1.29	0.98	1.70	280	15	48	174	9	30
HEXENE-1	7.4	0.7	1.1	0.44	0.55	0.44	93	8	12	58	5	8
N HEXANE	10.1	0.5	1.6	0.60	0.37	0.65	130	6	18	81	4	11
TC6=3,=2	10.7	0.7	2.1	0.63	0.49	0.86	134	7	24	83	5	15
CC6=3	3.2	0.3	0.6	0.19	0.24	0.23	40	4	6	25	2	4
2MPENTENE2	5.5	0.9	0.9	0.32	0.67	0.37	69	10	10	43	6	6
MCYP43M2C5	17.0	0.1	2.9	1.00	0.06	1.20	213	1	33	132	1	21
24MPENTANE	28.0	1.6	4.7	1.65	1.16	1.93	358	18	54	223	11	34
BENZENE	42.9	2.9	5.2	2.53	2.14	2.14	501	30	55	311	19	34
CYHEXANE	3.8	0.2	0.4	0.22	0.18	0.18	48	3	5	30	2	3
2MC6+23MC5	80.1	4.2	12.4	4.72	3.11	5.14	1026	48	144	638	30	90
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	15.8	0.8	2.3	0.93	0.61	0.97	202	9	27	126	6	17
224MPENTAN	116.6	7.2	19.6	6.88	5.31	8.11	1490	82	227	926	51	141
NHEPTANE	13.3	0.7	1.9	0.78	0.49	0.78	170	8	22	106	5	14
MCYHEXANE	9.2	0.5	1.4	0.54	0.37	0.57	116	6	16	72	3	10
25MHEXANE	9.8	0.5	1.5	0.58	0.37	0.63	126	6	18	78	4	11
24MC6+233M	10.1	0.7	1.8	0.60	0.49	0.76	129	8	21	80	5	13
234MC5	46.5	2.1	5.7	2.74	1.53	2.37	594	24	67	369	15	41
TOLUENE	61.2	4.9	10.7	3.61	3.60	4.41	721	51	114	448	32	71
23MC6+4MC7	13.9	0.6	2.1	0.82	0.43	0.86	177	7	24	110	4	15

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30102
DATE RUN: 01 10 78
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: SWARTZLANDER FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	11.8	0.5	1.6	0.70	0.37	0.68	151	6	19	94	4	12
3MHEPTANE	12.7	0.6	1.6	0.75	0.43	0.68	162	7	19	101	4	12
255MC6	12.9	0.7	1.8	0.76	0.55	0.73	165	8	20	102	5	13
N OCTANE	5.1	0.2	0.6	0.30	0.18	0.26	65	3	7	40	2	5
223MC6	2.1	0.1	0.3	0.12	0.06	0.10	27	1	3	17	1	2
ETCYHEXANE	3.5	0.2	0.4	0.21	0.12	0.16	44	2	4	27	1	3
ET BENZENE	12.6	1.1	1.8	0.74	0.79	0.73	160	11	19	93	7	12
M+PXYLENE	43.4	4.9	6.9	2.56	3.66	2.87	516	53	75	321	33	46
244MC8	6.9	0.6	1.0	0.41	0.43	0.42	88	7	12	55	4	7
O XYLENE	16.6	2.3	2.7	0.98	1.71	1.12	197	25	29	123	15	18
N NONANE	6.6	0.6	0.9	0.39	0.43	0.39	84	7	11	52	4	7
IPRBENZENE	4.3	0.5	0.6	0.25	0.37	0.26	51	5	7	32	3	4
NPRBENZENE	2.5	0.6	0.4	0.15	0.43	0.16	30	6	4	18	4	3
1M3ETBENZ	13.5	4.3	2.8	0.80	3.17	1.17	162	46	31	101	29	19
135MEBENZ	4.4	1.7	1.0	0.26	1.28	0.42	52	19	11	32	12	7
1M2ETBENZ	6.2	1.6	1.2	0.37	1.22	0.50	74	18	13	46	11	8
124MBENZ	11.5	6.0	3.5	0.68	4.45	1.43	137	65	38	85	40	23
SBUBENZENE	1.1	0.6	0.3	0.07	0.43	0.13	13	6	3	8	4	2
N DECANE	0.4	0.2	0.1	0.03	0.12	0.05	6	2	1	3	1	1
123MBENZ	1.5	1.2	0.4	0.09	0.92	0.16	18	13	4	11	8	3
INDANE	0.1	0.1	0.1	0.00	0.06	0.05	1	1	1	0	1	1
13EBENZENE	0.2	0.1	0.1	0.01	0.06	0.03	2	1	1	1	1	0
NBUBENZENE	1.1	0.8	0.4	0.07	0.61	0.18	13	9	5	8	6	3
1M3PRBENZ	0.9	1.2	0.6	0.06	0.85	0.26	11	12	7	7	8	4
UNKNOWNS	102.6	14.3	17.9	6.05	10.62	7.38	1233	155	195	766	96	121

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30401
DATE RUN: 01 11 76
CAR: 1974 CHEVROLET IMPALA VIN: 1169H6Y105643 DRIVER: SWARTZLANDER FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 40

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	490.5	129.0	279.7
GC PPMC	474.7	155.1	237.9

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	28.5	3.5	5.3	5.99	2.24	2.25	382	57	82	237	36	51
SATURATES	192.2	74.0	125.0	40.48	47.68	52.55	2307	1094	1709	1434	680	1062
OLEFINS	102.4	34.0	48.9	21.57	21.94	20.55	1201	492	653	746	306	406
ACETYLENE	39.4	3.9	5.8	8.31	2.50	2.45	429	52	72	267	32	45
NAPTHENES	11.9	3.2	5.3	2.51	2.08	2.25	140	47	71	87	29	44
AROMATICS	74.1	26.7	33.8	15.61	17.20	14.20	816	362	424	507	225	263
BENZENE	14.0	3.4	4.4	2.96	2.19	1.86	153	46	55	95	28	34
TOLUENE	21.2	6.7	10.4	4.46	4.33	4.38	233	91	131	145	57	81
C8+ARUM	38.9	16.6	19.0	8.19	10.68	7.97	435	228	242	271	142	150
UNKNOWN	26.2	9.9	13.7	0.00	0.00	0.00	294	136	175	183	85	109
INDIVIDUAL COMPONENTS												
METHANE	28.5	3.5	5.3	5.99	2.24	2.25	382	57	82	237	36	51
ETHYLENE	28.6	8.9	11.1	6.02	5.73	4.67	335	128	148	208	80	92
ETHANE	1.0	0.1	0.2	0.21	0.05	0.09	12	1	3	8	1	2
ACETYLENE	38.5	3.9	5.8	8.11	2.50	2.45	419	52	72	261	32	45
C3 + C3=	26.5	8.6	12.0	5.59	5.52	5.04	311	124	160	193	77	99
C=C=C	0.8	0.1	0.4	0.17	0.05	0.18	9	1	6	6	1	3
METHACETYL	0.9	0.0	0.0	0.20	0.00	0.00	10	0	0	6	0	0
ISOBUTANE	3.9	1.5	4.0	0.81	0.99	1.70	47	23	56	29	14	35
B1 + IB	15.8	5.1	7.1	3.34	3.28	3.00	186	74	95	115	46	59
NC4 +B=1=3	18.5	9.5	17.4	3.90	6.10	7.31	225	142	240	140	88	149
TBUTENE-2	2.9	1.3	2.2	0.62	0.83	0.92	34	19	29	21	12	18
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	2.4	0.9	1.7	0.50	0.57	0.71	28	13	23	17	8	14
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.9	0.4	0.7	0.20	0.26	0.30	11	6	9	7	4	6
ISOPENTANE	32.4	13.3	24.0	6.82	8.60	10.10	391	198	330	243	123	205
PENTENE-1	1.2	0.4	0.7	0.25	0.26	0.30	14	6	9	9	4	6
2MBUT-1	3.0	1.2	1.9	0.64	0.78	0.80	36	18	25	22	11	16
NPENTANE	4.3	1.9	2.9	0.92	1.20	1.24	52	28	40	33	17	25
2MB=1=3	0.0	0.1	0.0	0.00	0.05	0.00	0	1	0	0	1	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30401
DATE RUN: 01 11 76
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: SWARTZLANDER FUEL: WINTER

COMPOUND NAME	PPMC				% OF TOTAL CANNON				MG/MILE				MG/KM			
	BAG 1	2	3		BAG 1	2	3		BAG 1	2	3		BAG 1	2	3	
TPENT=2	3.0	1.1	2.0		0.64	0.73	0.85		36	16	27		22	10	17	
CISPENT-2	1.6	0.5	1.0		0.34	0.31	0.44		19	7	14		12	4	9	
2MBUT-2	5.7	2.3	3.2		1.19	1.46	1.35		66	33	43		41	20	27	
22MBUTANE	0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0	
CYPENTENE	1.6	0.2	0.4		0.34	0.16	0.18		18	3	6		11	2	4	
3MPENTENE	0.9	0.4	0.3		0.18	0.10	0.14		10	2	4		6	1	3	
CYPENTANE	2.5	0.2	0.3		0.52	0.16	0.14		29	4	4		18	2	3	
23MBUTANE	5.9	1.5	2.9		1.24	0.94	1.21		71	22	39		44	13	25	
2MPENTANE	11.8	6.3	8.7		2.49	4.06	3.64		142	93	118		88	58	74	
3MPENTANE	6.6	2.3	4.1		1.40	1.51	1.72		80	35	56		50	22	35	
HEXENE-1	2.1	0.9	1.2		0.43	0.57	0.50		24	13	16		15	8	10	
N HEXANE	2.9	1.0	1.5		0.60	0.63	0.64		34	14	21		21	9	13	
TC6=3=2	3.1	1.2	1.6		0.65	0.78	0.66		36	18	21		23	11	13	
CC6=3	0.8	0.2	0.3		0.17	0.16	0.21		9	4	7		6	2	4	
2MPENTENE2	1.4	0.5	0.7		0.30	0.31	0.30		17	7	9		10	4	6	
MCYP4M2C5	5.0	1.7	2.9		1.06	1.09	1.21		59	25	39		37	15	24	
24MPENTANE	8.0	2.9	4.6		1.69	1.88	1.92		96	43	62		60	27	39	
BENZENE	14.0	3.4	4.4		2.96	2.19	1.86		153	46	55		95	28	34	
CYHEXANE	1.2	0.3	0.4		0.25	0.21	0.18		14	5	6		9	3	4	
2MC6+23MC5	21.7	7.6	12.2		4.58	4.90	5.11		260	112	166		162	70	103	
24MHEXANE	0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0	
3MHEXANE	4.2	1.4	2.3		0.89	0.89	0.96		51	20	31		31	13	19	
224MPENTAN	33.5	12.3	19.4		7.05	7.92	8.16		400	181	264		248	112	164	
NHEPTANE	3.5	1.2	2.0		0.75	0.78	0.85		42	18	27		26	11	17	
MCYHEXANE	2.4	0.8	1.3		0.51	0.52	0.55		28	12	17		18	7	11	
25MHEXANE	2.7	0.8	1.4		0.56	0.52	0.57		33	12	19		20	7	12	
24MC6+233M	2.7	1.1	1.9		0.58	0.73	0.78		33	17	25		20	10	16	
234MC5	10.7	3.5	5.6		2.26	2.24	2.36		128	51	76		80	32	47	
TOLUENE	21.2	6.7	10.4		4.46	4.33	4.38		233	91	131		145	57	81	
23MC6+4MC7	3.6	1.2	2.1		0.76	0.78	0.89		43	18	29		27	11	18	

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30401
DATE RUN: 01 11 78
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: SWARTZLANDER FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
34MHEXANE	2.9	1.0	1.7	0.62	0.63	0.73	35	14	24	22	9	15
3MHEPTANE	3.0	1.0	1.7	0.63	0.63	0.73	36	14	24	22	9	15
255MC6	3.3	1.1	1.9	0.69	0.68	0.78	39	15	25	24	10	16
N OCTANE	1.1	0.3	0.7	0.24	0.21	0.27	13	5	9	8	3	6
223MC6	0.4	0.1	0.1	0.09	0.05	0.05	5	1	1	3	1	1
ETCYHEXANE	0.8	0.2	0.4	0.17	0.10	0.16	9	2	5	6	1	3
ET BENZENE	3.9	1.1	1.7	0.82	0.68	0.71	43	14	21	27	9	13
M+PXYLENE	13.9	4.4	6.2	2.93	2.81	2.59	154	60	78	96	37	48
244MC8	1.7	0.6	0.9	0.37	0.36	0.37	21	8	12	13	5	7
O XYLENE	5.2	1.9	2.4	1.09	1.20	1.01	57	25	30	36	16	19
N NONANE	1.4	0.6	0.8	0.30	0.36	0.34	17	8	11	11	5	7
IPRBENZENE	0.9	0.3	0.5	0.18	0.21	0.21	10	4	6	6	3	4
NPRBENZENE	0.7	0.2	0.4	0.16	0.16	0.16	8	3	5	5	2	3
1M3ETBENZ	4.6	2.3	2.2	0.97	1.46	0.94	51	31	28	32	19	18
135MEBENZ	1.5	0.8	0.8	0.31	0.52	0.34	17	11	10	10	7	6
1M2ETBENZ	1.7	0.8	1.1	0.35	0.52	0.46	19	11	14	12	7	9
124MBENZ	4.3	2.7	2.4	0.90	1.77	1.01	48	38	30	30	23	19
SBUBENZENE	0.4	0.2	0.3	0.08	0.16	0.11	4	3	3	3	2	2
N DECANE	0.1	0.1	0.1	0.03	0.05	0.02	1	1	1	1	1	0
123MBENZ	0.7	0.6	0.4	0.16	0.36	0.18	8	8	6	5	5	3
INDANE	0.2	0.2	0.0	0.04	0.10	0.00	2	2	0	1	1	0
13EBENZENE	0.1	0.1	0.0	0.01	0.05	0.00	1	1	0	0	1	0
NBUBENZENE	0.4	0.5	0.3	0.09	0.31	0.11	5	7	3	3	4	2
1M3PRBENZ	0.4	0.6	0.3	0.09	0.36	0.14	5	8	4	3	5	3
UNKNOWNS	26.2	9.9	13.7	5.52	6.36	5.75	294	136	175	183	85	109

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30402
DATE RUN: 01 12 78
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: SWARTZLANDER FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 40

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	1554.1	136.8	225.0
GC PPMC	1422.0	158.2	254.5

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
MAJOR COMPONENTS												
METHANE	169.4	3.9	5.9	11.91	2.43	2.33	2417	64	67	1502	40	41
SATURATES	469.2	72.1	134.0	33.00	45.67	52.65	5995	1075	1346	3726	668	837
OLEFINS	265.0	33.9	51.8	18.64	21.42	20.35	3307	493	508	2055	306	316
ACETYLENE	254.6	3.9	5.9	17.91	2.43	2.31	2949	52	53	1833	32	33
NAPTHENES	24.7	3.1	5.9	1.74	1.95	2.33	308	45	58	192	28	36
AROMATICS	174.4	28.0	36.6	12.26	17.72	14.37	2043	383	337	1270	238	209
BENZENE	42.9	3.3	5.1	3.02	2.09	2.02	497	45	47	309	28	29
TOLUENE	40.4	6.8	11.1	2.84	4.28	4.35	473	93	102	294	58	63
C8+AROM	91.1	17.9	20.4	6.41	11.34	8.00	1085	249	191	675	155	118
UNKNOWN	64.7	13.2	14.4	0.00	0.00	0.00	772	184	135	480	115	84
INDIVIDUAL COMPONENTS												
METHANE	169.4	3.9	5.9	11.91	2.43	2.33	2417	64	67	1502	40	41
ETHYLENE	72.5	8.1	11.6	5.10	5.11	4.56	905	118	114	562	73	71
ETHANE	7.7	0.9	1.4	0.54	0.58	0.55	103	14	15	64	9	9
ACETYLENE	247.5	3.9	5.9	17.40	2.43	2.31	2866	52	53	1781	32	33
C3 + C3=	76.0	8.4	19.6	5.35	5.31	4.56	949	122	114	590	76	71
C=C=C	2.6	0.1	0.2	0.18	0.05	0.06	30	1	2	19	1	1
METHACETYL	7.1	0.0	0.0	0.50	0.00	0.00	85	0	0	53	0	0
ISOBUTANE	9.8	1.6	3.8	0.69	1.02	1.49	127	24	39	79	15	24
B1 + IB	35.7	5.2	7.6	2.51	3.26	2.99	445	75	75	277	47	46
NC4 +B=1=3	51.9	9.6	18.6	3.65	6.04	7.32	671	144	189	417	89	118
TBUTENE-2	8.7	1.4	2.2	0.61	0.88	0.87	109	20	22	68	13	13
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	7.1	0.9	1.8	0.50	0.58	0.71	89	13	18	55	8	11
B=1=2	0.5	0.0	0.0	0.04	0.00	0.00	6	0	0	4	0	0
3MB1	2.5	0.5	0.7	0.17	0.29	0.26	31	7	7	19	4	4
ISOPENTANE	75.9	13.3	26.2	5.34	8.42	10.28	975	199	264	606	124	164
PENTENE-1	2.9	0.4	0.8	0.20	0.24	0.31	36	6	8	22	3	5
2MBUT-1	7.5	1.2	2.1	0.52	0.78	0.84	93	18	21	58	11	13
NPENTANE	9.5	1.8	3.1	0.67	1.12	1.23	122	26	32	76	16	20
2MB=1=3	3.5	0.3	0.0	0.25	0.19	0.00	42	4	0	26	3	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30401
DATE RUN: 01 11 78
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: SWARTZLANDER FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
34MHEXANE	2.9	1.0	1.7	0.62	0.63	0.73	35	14	24	22	9	15
3MHEPTANE	3.0	1.0	1.7	0.63	0.63	0.73	36	14	24	22	9	15
255MC6	3.3	1.1	1.9	0.69	0.68	0.78	39	15	25	24	10	16
N OCTANE	1.1	0.3	0.7	0.24	0.21	0.27	13	5	9	8	3	6
223MC6	0.4	0.1	0.1	0.09	0.05	0.05	5	1	1	3	1	1
ETCYHEXANE	0.8	0.2	0.4	0.17	0.10	0.16	9	2	5	6	1	3
ET BENZENE	3.9	1.1	1.7	0.82	0.68	0.71	43	14	21	27	9	13
M+PXYLENE	13.9	4.4	6.1	2.93	2.81	2.59	154	60	78	96	37	48
244MC8	1.7	0.6	0.9	0.37	0.36	0.37	21	8	12	13	5	7
O XYLENE	5.2	1.9	2.4	1.09	1.20	1.01	57	25	30	36	16	19
N NONANE	1.4	0.6	0.8	0.30	0.36	0.34	17	8	11	11	5	7
1PRBENZENE	0.9	0.3	0.5	0.18	0.21	0.21	10	4	6	6	3	4
NPRBENZENE	0.7	0.2	0.4	0.16	0.16	0.16	8	3	5	5	2	3
1M3ETBENZ	4.6	2.3	2.2	0.97	1.46	0.94	51	31	28	32	19	18
135MEBENZ	1.5	0.8	0.8	0.31	0.52	0.34	17	11	10	10	7	6
1M2ETBENZ	1.7	0.8	1.1	0.35	0.52	0.46	19	11	14	12	7	9
124MBENZ	4.3	2.7	2.4	0.90	1.77	1.01	48	38	30	30	23	19
SBUBENZENE	0.4	0.2	0.3	0.08	0.16	0.11	4	3	3	3	2	2
N DECANE	0.1	0.1	0.1	0.03	0.05	0.02	1	1	1	1	1	0
123MBENZ	0.7	0.6	0.4	0.16	0.36	0.18	8	8	6	5	5	3
INDANE	0.2	0.2	0.0	0.04	0.10	0.00	2	2	0	1	1	0
13EBENZENE	0.1	0.1	0.0	0.01	0.05	0.00	1	1	0	0	1	0
NBUBENZENE	0.4	0.5	0.3	0.09	0.31	0.11	5	7	3	3	4	2
1M3PRBENZ	0.4	0.6	0.3	0.09	0.36	0.14	5	8	4	3	5	3
UNKNOWNS	26.2	9.9	13.7	5.52	6.36	5.75	294	136	175	183	85	109

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30402
DATE RUN: 01 12 78
CAR: 1979 CHLVROLET INPALA VIN: 1L69H4Y105643 DRIVER: SWARTZLANDER FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 40

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	1554.1	136.8	225.0
GC PPMC	1422.0	158.2	254.5

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
MAJOR COMPONENTS												
METHANE	169.4	3.9	5.9	11.91	2.43	2.33	2417	64	67	1502	40	41
SATURATES	469.2	72.1	134.0	33.00	45.67	52.65	5995	1075	1346	3726	668	837
OLEFINS	265.0	33.9	51.8	18.64	21.42	20.35	3387	493	508	2055	306	316
ACETYLENE	254.6	3.9	5.9	17.91	2.43	2.31	2949	52	53	1833	32	33
NAPTHENES	24.7	3.1	5.9	1.74	1.95	2.33	308	45	58	192	28	36
AROMATICS	174.4	28.0	36.0	12.26	17.72	14.37	2043	383	337	1270	238	209
BENZENE	42.9	3.3	5.1	3.02	2.09	2.02	497	45	47	309	28	29
TOLUENE	40.4	6.8	11.1	2.84	4.28	4.45	473	93	102	294	58	63
C8+AROM	91.1	17.9	20.4	6.41	11.34	8.00	1085	249	191	675	155	118
UNKNOWN	64.7	13.2	14.4	0.00	0.00	0.00	772	184	135	480	115	84
INDIVIDUAL COMPONENTS												
METHANE	169.4	3.9	5.9	11.91	2.43	2.33	2417	64	67	1502	40	41
ETHYLENE	72.5	8.1	11.6	5.10	5.11	4.56	905	118	114	562	73	71
ETHANE	7.7	0.9	1.4	0.54	0.58	0.55	103	14	15	64	9	9
ACETYLENE	247.5	3.9	5.9	17.40	2.43	2.31	2866	52	53	1781	32	33
C3 + C3=	76.0	8.4	11.6	5.35	5.31	4.56	949	122	114	590	76	71
C=C=C	2.6	0.1	0.2	0.18	0.05	0.08	30	1	2	19	1	1
METHACETYL	7.1	0.0	0.0	0.50	0.00	0.00	65	0	0	53	0	0
ISOBUTANE	9.8	1.6	3.8	0.69	1.02	1.49	127	24	39	79	15	24
B1 + IB	35.7	5.2	7.6	2.51	3.26	2.99	445	75	75	277	47	46
NC4 +B=1=3	51.9	9.6	18.6	3.65	6.04	7.32	671	144	189	417	89	118
TBUTENE-2	6.7	1.4	2.2	0.61	0.88	0.87	109	20	22	68	13	13
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	7.1	0.9	1.8	0.50	0.58	0.71	89	13	18	55	8	11
B=1=2	0.5	0.0	0.0	0.04	0.00	0.00	6	0	0	4	0	0
3MB1	2.5	0.5	0.7	0.17	0.29	0.26	31	7	7	19	4	4
ISOPENTANE	75.9	13.3	26.2	5.34	8.42	10.28	975	199	264	606	124	164
PENTENE-1	2.9	0.4	0.8	0.20	0.24	0.31	36	6	8	22	3	5
2MBUT-1	7.5	1.2	2.1	0.52	0.78	0.84	93	18	21	58	11	13
NPENTANE	9.5	1.8	3.1	0.67	1.12	1.23	122	26	32	76	16	20
2MB=1=3	3.5	0.3	0.0	0.25	0.19	0.00	42	4	0	26	3	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30402
DATE RUN: 01 12 78
CAR: 1976 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: SWARTZLANDER FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	7.5	1.2	2.1	0.52	0.78	0.81	93	18	20	58	11	13
CISPENT-2	3.9	0.5	1.1	0.27	0.34	0.42	49	8	10	30	5	7
2MBUT-2	13.1	2.4	3.9	0.92	1.51	1.55	163	35	39	102	22	24
22MBUTANE	0.5	0.0	0.0	0.03	0.00	0.00	6	0	0	4	0	0
CYPENTENE	2.0	0.2	0.5	0.14	0.15	0.21	24	3	5	15	2	3
3MPLNTENE	2.1	0.2	0.3	0.15	0.10	0.13	27	2	3	17	1	2
CYPENTANE	2.6	0.2	0.3	0.18	0.10	0.10	32	2	3	20	1	2
23MBUTANE	10.9	1.8	3.1	0.77	1.17	1.23	140	28	32	87	17	20
2MPENTANE	24.2	4.1	7.3	1.70	2.58	2.88	309	61	74	192	38	46
3MPENTANE	14.0	2.5	4.3	0.99	1.56	1.70	179	37	44	111	23	27
HEXENE-1	3.8	0.6	1.1	0.26	0.39	0.45	47	9	11	29	6	7
N HEXANE	6.2	0.9	1.8	0.43	0.58	0.71	79	14	18	49	9	11
TC6=3,=2	7.2	1.4	2.3	0.51	0.88	0.92	90	20	23	56	13	14
CC6=3	1.9	0.4	0.7	0.14	0.24	0.26	24	6	7	15	3	4
2MPENTENE2	4.1	0.5	1.1	0.29	0.34	0.42	51	8	10	32	5	7
MCYP43M2C5	11.1	1.7	3.3	0.78	1.07	1.28	139	25	32	86	15	20
24MPENTANE	18.0	2.8	5.1	1.27	1.80	2.02	229	42	51	142	26	32
BENZENE	42.9	3.3	5.1	3.02	2.09	2.02	497	45	47	309	28	29
CYHEXANE	2.4	0.3	0.5	0.17	0.19	0.21	30	4	5	19	3	3
2MC6+23MC5	50.9	7.5	13.6	3.58	4.72	5.35	648	111	136	403	69	85
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	10.2	1.4	2.6	0.72	0.88	1.02	130	21	26	81	13	16
224MPENTAN	81.0	12.0	21.1	5.70	7.59	8.29	1029	178	211	640	111	131
NHEPTANE	9.0	1.2	2.4	0.63	0.73	0.94	115	17	24	71	11	15
MCYHEXANE	6.0	0.8	1.5	0.42	0.49	0.58	75	11	14	47	7	9
25MHEXANE	6.4	0.8	1.7	0.45	0.49	0.66	81	11	17	50	7	10
24MC6+233M	5.6	1.2	1.8	0.39	0.73	0.71	71	17	18	44	11	11
234MC5	32.9	3.4	6.2	2.31	2.14	2.44	418	50	62	260	31	39
TOLUENE	40.4	6.8	11.1	2.84	4.28	4.35	473	93	102	294	58	63
23MC6+4MC7	8.6	1.2	2.1	0.60	0.73	0.84	109	17	21	68	11	13

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30402
DATE RUN: 01 12 78
CAR: 1974 CHEVROLET IMPALA VIN: 1169M4Y105643 DRIVER: SWARTZLANDER FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	7.3	0.9	1.7	0.51	0.58	0.66	92	14	17	57	9	10
3MHEPTANE	7.7	0.9	1.6	0.54	0.58	0.63	97	14	16	60	9	10
25DMC6	7.9	1.0	1.7	0.56	0.63	0.68	100	15	17	62	9	11
N OCTANE	3.0	0.3	0.6	0.21	0.19	0.24	38	5	6	23	3	4
223MC6	1.3	0.1	0.1	0.09	0.05	0.05	17	1	1	11	1	1
ETCYHEXANE	2.6	0.2	0.4	0.18	0.10	0.16	32	2	4	20	1	2
ET BENZENE	9.6	1.0	1.8	0.68	0.63	0.71	113	14	17	70	9	10
M+PXYLENE	29.7	4.1	6.6	2.09	2.58	2.60	351	56	61	218	35	38
2+4MC8	4.4	0.5	0.9	0.31	0.34	0.37	56	8	9	35	5	6
O XYLENE	11.3	1.8	2.5	0.79	1.12	1.00	133	24	24	83	15	15
N NONANE	4.0	0.5	0.9	0.28	0.34	0.34	51	8	9	32	5	5
IPRBENZENE	2.6	0.3	0.5	0.18	0.19	0.21	31	4	5	19	3	3
NPRBENZENE	1.9	0.3	0.3	0.13	0.19	0.13	22	4	3	14	3	2
1M3ETBENZ	10.9	2.2	2.3	0.77	1.41	0.92	130	31	22	81	19	14
135MEBENZ	3.8	0.9	0.8	0.26	0.58	0.31	45	13	7	28	8	5
1M2ETBENZ	4.4	0.8	0.9	0.31	0.54	0.37	53	12	9	33	7	5
124MBENZ	11.4	3.6	2.5	0.80	2.29	1.00	136	50	24	84	31	15
SBUBENZENE	0.9	0.4	0.3	0.07	0.24	0.10	11	5	3	7	3	2
N DECANE	0.3	0.1	0.1	0.02	0.05	0.03	4	1	1	3	1	0
123MBENZ	1.4	0.8	0.5	0.10	0.49	0.21	17	11	5	10	7	3
INDANE	0.5	0.2	0.1	0.04	0.10	0.03	6	2	1	4	1	0
13EBENZENE	0.3	0.1	0.1	0.02	0.05	0.03	3	1	1	2	1	0
NBUBENZENE	1.0	0.5	0.4	0.07	0.34	0.16	12	8	4	7	5	2
1M3PRBENZ	1.3	0.9	0.6	0.09	0.58	0.24	15	13	6	9	8	4
UNKNOWNS	64.7	13.2	14.4	4.55	8.37	5.66	772	184	135	480	115	84

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30601
DATE RUN: 12 09 77
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: L J WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 60

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	448.5	116.6	273.5
GC PPMC	388.6	101.2	254.7

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	29.7	2.5	6.6	7.65	2.44	2.61	443	56	91	275	35	57
SATURATES	138.8	33.8	119.8	35.71	33.41	47.06	1851	683	1476	1151	424	918
OLEFINS	100.6	34.5	57.8	25.89	34.13	22.70	1311	681	696	815	423	432
ACETYLENE	37.3	3.0	6.9	9.61	3.00	2.72	451	56	77	281	34	48
NAPTHENES	7.1	1.1	6.9	1.83	1.05	2.72	93	21	83	58	13	52
AROMATICS	61.6	18.0	45.7	15.86	17.81	17.93	754	334	516	469	208	321
BENZENE	14.0	2.7	7.5	3.61	2.66	2.93	170	49	83	105	31	52
TOLUENE	23.4	5.6	16.6	6.03	5.49	6.52	287	103	188	178	64	117
C8+AROM	24.2	9.8	21.6	6.22	9.66	8.48	301	184	248	187	114	154
UNKNOWN	13.4	8.3	10.9	0.00	0.00	0.00	167	156	125	104	97	78
INDIVIDUAL COMPONENTS												
METHANE	29.7	2.5	6.6	7.65	2.44	2.61	443	56	91	275	35	57
ETHYLENE	29.6	5.8	12.8	7.61	5.77	5.03	385	115	154	240	72	96
ETHANE	4.0	0.7	1.8	1.03	0.72	0.70	56	15	23	35	10	14
ACETYLENE	36.5	3.0	6.9	9.39	3.00	2.72	441	56	77	274	34	48
C3 + C3=	30.7	5.2	14.2	7.91	5.16	5.59	400	103	171	249	64	106
C=C=C	1.1	0.1	0.5	0.29	0.11	0.19	14	2	5	9	1	3
METHACETYL	0.8	0.0	0.0	0.21	0.00	0.00	10	0	0	6	0	0
ISOBUTANE	3.0	0.7	4.2	0.78	0.67	1.63	41	14	52	26	9	32
B1 + IB	17.1	3.4	9.0	4.39	3.33	3.52	223	66	108	138	41	67
NC4 +B=1=3	11.2	3.1	13.6	2.88	3.05	5.36	151	63	170	94	39	106
TBUTENE-2	2.5	0.6	2.1	0.64	0.55	0.81	32	11	25	20	7	16
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	2.0	15.2	1.7	0.51	14.98	0.68	26	299	21	16	186	13
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.8	0.2	0.7	0.21	0.22	0.28	11	4	9	7	3	5
ISOPENTANE	16.1	4.1	1.9	4.13	4.05	0.75	215	83	23	134	52	15
PENTENE-1	0.9	0.2	0.9	0.23	0.22	0.37	12	4	11	7	3	7
2MBUT-1	2.3	0.6	2.3	0.60	0.61	0.88	31	12	27	19	8	17
NPENTANE	3.2	0.8	3.6	0.82	0.83	1.40	43	17	44	26	11	27
2MB=1=3	0.3	0.2	0.0	0.08	0.22	0.00	4	4	0	2	3	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30601
DATE RUN: 12 09 77
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: L J WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	2.0	0.6	2.3	0.51	0.55	0.91	26	11	28	16	7	17
CISPENT-2	1.0	0.2	1.2	0.25	0.22	0.47	12	4	14	8	3	9
2MBUT-2	3.9	1.1	4.3	1.01	1.05	1.68	51	21	51	32	13	32
22MBUTANE	0.3	0.0	0.2	0.07	0.00	0.07	3	0	2	2	0	1
CYPENTENE	0.6	0.1	0.5	0.15	0.11	0.21	7	2	6	4	1	4
3MPENTENE	0.4	0.1	0.4	0.10	0.11	0.14	5	2	4	3	1	3
CYPENTANE	0.3	0.1	0.8	0.08	0.11	0.33	4	2	10	3	1	6
23MBUTANE	4.6	1.2	6.2	1.19	1.22	2.42	62	25	76	38	16	47
2MPENTANE	8.9	2.4	7.6	2.29	2.33	2.98	119	48	94	74	30	58
3MPENTANE	5.0	1.1	4.4	1.27	1.11	1.75	66	23	55	41	14	34
HEXENE-1	1.5	0.1	1.2	0.39	0.11	0.47	20	2	14	12	1	9
N HEXANE	2.5	0.6	2.4	0.65	0.55	0.95	34	11	30	21	7	19
TC6=3,=2	2.2	0.4	2.1	0.57	0.44	0.84	29	9	26	18	6	16
CC6=3	0.7	0.1	0.7	0.18	0.11	0.28	9	2	9	6	1	5
2MPENTENE2	1.0	0.2	0.9	0.26	0.22	0.37	13	4	11	8	3	7
MCYP43M2C5	3.7	0.2	3.3	0.96	0.22	1.30	49	4	40	30	3	25
24MPENTANE	5.7	1.3	5.2	1.47	1.28	2.05	76	26	64	47	16	40
BENZENE	14.0	2.7	7.5	3.61	2.66	2.93	170	49	83	105	31	52
CYHEXANE	0.9	0.2	0.9	0.23	0.22	0.37	12	4	11	7	3	7
2MC6+23MC5	13.0	3.1	12.5	3.33	3.05	4.89	172	62	153	107	39	95
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.5	0.8	3.3	0.90	0.83	1.30	46	17	41	29	11	25
224MPENTAN	25.2	6.1	22.8	6.49	5.99	8.96	334	122	280	208	76	174
NHEPTANE	3.0	0.7	2.7	0.78	0.72	1.07	41	15	33	25	9	21
MCYHEXANE	1.5	0.4	1.2	0.39	0.39	0.49	20	8	15	12	5	9
25MHEXANE	4.4	1.0	4.0	1.14	1.00	1.58	59	20	49	37	13	31
24MC6+23M	1.8	0.4	1.7	0.47	0.44	0.65	24	9	20	15	6	13
234MC5	9.7	2.0	10.3	2.50	2.00	4.03	129	41	126	80	25	78
TOLUENE	23.4	5.6	16.6	6.03	5.49	6.52	287	103	188	178	64	117
23MC6+4MC7	2.9	0.7	2.5	0.74	0.72	0.98	38	15	31	24	9	19

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30601
DATE RUN: 12 09 77
CAR: 1974 CHEVROLET IMPALA VIN: 1169M4Y105643 DRIVER: L J WARD FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
34MHEXANE		2.5	0.6	2.1		0.64	0.61	0.81		33	12	25		20	8	16
3MHEPTANE		2.2	0.6	1.8		0.57	0.55	0.72		29	11	23		18	7	14
255MC6		3.0	0.7	2.5		0.77	0.72	0.98		39	15	30		25	9	19
N OCTANE		1.0	0.3	0.8		0.25	0.33	0.30		13	7	9		8	4	6
223MC6		0.3	0.1	0.2		0.07	0.06	0.09		3	1	3		2	1	2
ETCYHEXANE		0.6	0.1	0.6		0.16	0.11	0.23		8	2	7		5	1	4
ET BENZENE		3.1	0.7	2.6		0.80	0.72	1.02		38	14	30		24	8	18
M+PXYLENE		9.7	3.0	7.9		2.48	2.94	3.12		119	56	90		74	35	56
2+4MC8		1.2	0.3	1.0		0.31	0.33	0.40		16	7	12		10	4	8
O XYLENE		3.4	1.1	2.8		0.88	1.11	1.12		42	21	32		26	13	20
N NONANE		0.7	0.2	0.6		0.18	0.22	0.23		9	5	7		6	3	5
IPRBENZENE		0.6	0.2	0.5		0.16	0.22	0.21		8	4	6		5	3	4
NPRBENZENE		0.4	0.2	0.5		0.11	0.17	0.19		6	3	5		3	2	3
1M3ETBENZ		2.2	1.1	2.2		0.57	1.05	0.86		28	20	25		17	12	16
135MEBENZ		0.8	0.3	0.8		0.20	0.33	0.30		9	6	9		6	4	5
1M2ETBENZ		0.8	0.2	0.7		0.20	0.17	0.28		9	3	8		6	2	5
124MBENZ		2.0	1.6	2.1		0.51	1.78	0.81		24	34	24		15	21	15
SBUBENZENE		0.5	0.3	0.2		0.13	0.33	0.09		6	6	3		4	4	2
N DECANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
123MBENZ		0.2	0.4	0.4		0.05	0.39	0.14		2	7	4		1	5	3
INDANE		0.1	0.1	0.2		0.02	0.06	0.07		1	1	2		0	1	1
13ERENZENE		0.0	0.1	0.3		0.00	0.06	0.12		0	1	3		0	1	2
NBUBENZENE		0.3	0.1	0.3		0.07	0.06	0.12		3	1	3		2	1	2
IN3PRBENZ		0.2	0.3	0.1		0.05	0.28	0.02		2	5	1		1	3	0
UNKNOWNS		13.4	8.3	10.9		3.45	8.16	4.26		167	156	125		104	97	78

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30602
DATE RUN: 01 13 78
CAR: 1974 CHEVROLET IMPALA VIN: 1169M4Y105643 DRIVER: SWARTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 60

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	369.4	155.4	291.6
GC PPMC	333.6	101.2	254.7

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	21.9	2.3	5.1	6.56	2.23	2.07	312	68	77	194	42	48
SATURATES	125.5	48.1	130.9	37.62	47.51	51.40	1601	1302	1719	995	809	1068
OLEFINS	81.6	21.8	52.5	24.47	21.54	20.60	1017	577	673	632	358	418
ACETYLENE	23.7	2.5	5.9	7.11	2.51	2.33	274	62	71	170	39	44
NAPTHENES	7.0	2.6	7.0	2.11	2.61	2.75	88	70	90	54	43	56
AROMATICS	59.5	19.3	40.9	17.82	19.08	16.04	696	479	492	432	298	306
BENZENE	12.1	2.6	6.6	3.62	2.75	2.66	140	68	81	87	42	50
TOLUENE	22.2	7.2	17.0	6.67	7.07	6.69	260	176	205	162	110	128
C8+AROM	25.1	9.4	17.0	7.54	9.26	6.69	299	237	209	186	147	130
UNKNOWN	14.4	4.6	12.3	0.00	0.00	0.00	171	116	151	106	72	94
INDIVIDUAL COMPONENTS												
METHANE	21.9	2.3	5.3	6.56	2.23	2.07	312	68	77	194	42	48
ETHYLENE	22.6	5.1	10.7	6.78	5.03	4.21	282	134	137	175	84	85
ETHANE	2.9	0.6	1.4	0.87	0.60	0.54	39	17	19	24	11	12
ACETYLENE	23.7	2.5	5.6	7.11	2.51	2.18	274	62	66	170	39	41
C3 + C3=	25.6	5.4	12.8	7.67	5.30	5.03	319	142	164	198	88	102
C=C=C	1.0	0.1	0.5	0.30	0.09	0.20	12	2	6	7	1	4
METHACETYL	0.0	0.0	0.4	0.00	0.00	0.15	0	0	5	0	0	3
ISOBUTANE	3.3	0.8	3.1	1.00	0.84	1.22	43	23	41	27	14	26
B1 + IB	14.0	3.6	7.7	4.19	3.54	3.01	174	95	98	108	59	61
NC4 +B=1=3	9.7	4.2	11.0	2.92	4.14	4.32	126	115	146	78	71	91
TBUTENE-2	2.2	0.6	1.6	0.66	0.74	0.61	28	20	20	17	12	12
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.7	0.5	1.3	0.50	0.51	0.52	21	14	17	13	9	11
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.7	0.3	0.7	0.22	0.33	0.26	9	9	9	6	5	5
ISOPENTANE	14.2	6.0	17.3	4.27	5.96	6.80	182	164	229	113	102	142
PENTENE-1	0.7	0.3	0.6	0.22	0.28	0.33	9	7	11	6	5	7
2MBUT-1	2.0	0.8	2.1	0.61	0.79	0.83	25	21	27	16	13	17
NPENTANE	2.8	1.2	3.3	0.83	1.16	1.31	36	32	44	22	20	27
2MB=1=3	0.3	0.2	0.0	0.09	0.19	0.00	4	5	0	2	3	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30602
DATE RUN: 01 13 78
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.8	0.8	2.2	0.54	0.74	0.85	22	20	28	14	12	17
CISPENT-2	0.9	0.3	1.1	0.26	0.33	0.44	11	9	14	7	5	9
2MBUT-2	3.6	1.5	4.1	1.09	1.49	1.59	45	40	52	28	25	32
22MBUTANE	0.0	0.0	0.2	0.00	0.00	0.07	0	0	2	0	0	1
CYPENTENE	0.5	0.2	0.7	0.15	0.19	0.26	6	5	8	4	3	5
3MPENTENE	0.4	0.1	1.2	0.13	0.14	0.46	5	4	15	3	2	9
CYPENTANE	1.0	0.2	0.8	0.31	0.23	0.31	13	6	10	8	4	6
23MBUTANE	6.3	2.8	4.5	1.90	2.75	1.77	81	75	59	50	47	37
2MPENTANE	7.8	3.0	7.7	2.33	2.98	3.03	99	82	101	62	51	63
3MPENTANE	4.5	1.7	4.7	1.35	1.72	1.83	57	47	61	36	29	38
HEXENE-1	0.1	0.4	1.2	0.04	0.42	0.46	2	11	15	1	7	9
N HEXANE	2.2	0.8	2.4	0.66	0.84	0.96	28	23	32	18	14	20
TC6=3,=2	2.0	0.8	2.3	0.61	0.84	0.89	25	22	29	16	14	18
CC6=3	0.6	0.3	0.7	0.18	0.28	0.28	8	7	9	5	5	6
2MPENTENE2	0.8	0.3	0.9	0.24	0.33	0.37	10	9	12	6	5	8
MCYP43M2C5	2.9	1.2	3.4	0.87	1.16	1.35	36	31	44	22	19	27
24MPENTANE	4.7	1.8	5.4	1.42	1.77	2.11	60	48	70	37	30	44
BENZENE	12.1	2.8	6.8	3.62	2.75	2.66	140	68	81	87	42	50
CYHEXANE	1.0	0.5	0.9	0.31	0.47	0.37	13	12	12	8	8	8
2MC6+23MC5	12.0	4.5	12.8	3.60	4.42	5.03	153	121	168	95	75	104
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.2	1.1	3.4	0.96	1.12	1.35	41	30	45	25	19	28
224MPENTAN	22.6	8.5	23.8	6.78	8.42	9.33	287	229	310	178	143	193
NHEPTANE	2.8	1.0	2.9	0.83	0.98	1.16	35	27	39	22	17	24
MCYHEXANE	1.5	0.6	1.3	0.44	0.56	0.52	18	15	17	11	9	11
25MHEXANE	3.1	1.4	3.2	0.94	1.35	1.26	40	37	42	25	23	26
24MC6+233M	2.6	0.8	2.7	0.79	0.84	1.05	34	23	35	21	14	22
234MC5	8.1	2.9	9.2	2.42	2.89	3.60	102	79	120	64	49	74
TOLUENE	22.2	7.2	17.0	6.67	7.07	6.69	260	178	205	162	110	128
23MC6+4MC7	2.6	1.0	2.6	0.78	1.02	1.00	33	28	33	20	17	21

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30002
DATE RUN: 01 13 7h
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105043 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.2	0.8	2.2	0.65	0.84	0.85	27	23	28	17	14	18
3MHEPTANE	1.9	0.8	1.9	0.57	0.74	0.74	24	20	25	15	13	15
255MC6	2.8	1.1	2.7	0.85	1.07	1.05	36	29	35	22	18	22
N OCTANE	0.9	0.3	0.8	0.26	0.33	0.31	11	9	10	7	6	6
223MC6	0.3	0.1	0.3	0.09	0.14	0.11	4	4	4	2	2	2
ETCYHEXANE	0.6	0.2	0.5	0.17	0.19	0.20	7	5	6	4	3	4
ET BENZENE	3.1	0.8	2.1	0.92	0.64	0.83	36	21	26	23	13	16
M+PXYLENE	10.0	3.3	7.2	2.99	3.26	2.61	118	82	67	73	51	54
2+4MC8	1.2	0.4	0.9	0.35	0.37	0.37	15	10	12	9	6	8
O XYLENE	3.7	1.3	2.7	1.11	1.26	1.05	44	32	32	27	20	20
N NONANE	0.7	0.2	0.6	0.20	0.23	0.24	9	6	8	5	4	5
IPRBENZENE	0.6	0.2	0.5	0.17	0.19	0.20	7	5	6	4	3	4
NPRBENZENE	0.4	0.2	0.3	0.13	0.19	0.11	5	5	3	3	3	2
IM3ETBENZ	2.4	1.0	1.5	0.72	0.98	0.59	29	25	18	18	15	11
135MEBENZ	0.8	0.3	0.4	0.24	0.33	0.17	10	8	5	6	5	3
IM2ETBENZ	0.7	0.2	0.6	0.22	0.23	0.24	9	6	7	5	4	5
124MBENZ	2.2	1.2	1.2	0.66	1.16	0.46	26	30	14	16	18	9
SBUBENZENE	0.1	0.1	0.1	0.04	0.09	0.02	1	2	1	1	1	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.4	0.2	0.2	0.11	0.23	0.07	4	6	2	3	4	1
INDANE	0.1	0.0	0.1	0.02	0.05	0.02	1	1	1	0	1	0
13EBENZENE	0.1	0.0	0.0	0.02	0.05	0.00	1	1	0	0	1	0
NBUBENZENE	0.3	0.2	0.2	0.09	0.19	0.07	4	5	2	2	3	1
IM3PRBENZ	0.3	0.2	0.2	0.09	0.23	0.07	4	6	2	2	4	1
UNKNOWNS	14.4	4.6	12.3	4.30	4.51	4.82	171	116	151	106	72	94

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30603
DATE RUN: 01 15 76
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: L J WARD FUEL: SUNNER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 60

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	464.6	230.2	276.6
GC PPMC	429.1	259.2	279.8

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
MAJOR COMPONENTS												
METHANE	23.9	3.6	5.8	5.56	1.38	2.07	336	63	73	209	39	46
SATURATES	178.1	130.8	134.3	41.49	50.44	48.00	2246	2066	1522	1396	1284	946
OLEFINS	87.3	43.3	52.9	20.34	16.70	18.90	1075	668	585	668	415	364
ACETYLENE	28.5	4.0	5.7	6.63	1.53	2.04	325	57	59	202	35	37
NAPTHENES	9.0	6.5	7.8	2.10	2.51	2.79	111	100	87	69	62	54
AROMATICS	84.8	54.6	59.8	19.76	21.05	21.38	981	791	622	609	491	386
BENZENE	14.3	5.9	7.2	3.33	2.26	2.59	163	84	74	102	52	46
TOLUENE	30.9	19.4	20.7	7.21	7.49	7.38	358	282	215	222	175	133
C8+AROM	39.6	29.3	31.9	9.22	11.29	11.40	465	431	337	289	268	210
UNKNOWN	17.6	16.6	13.5	0.00	0.00	0.00	208	245	143	129	152	89
INDIVIDUAL COMPONENTS												
METHANE	23.9	3.6	5.8	5.56	1.38	2.07	336	63	73	209	39	46
ETHYLENE	24.9	8.6	12.1	5.81	3.30	4.32	307	132	134	191	82	83
ETHANE	3.3	1.1	1.5	0.76	0.43	0.52	43	18	17	27	11	11
ACETYLENE	28.5	4.0	5.7	6.63	1.53	2.04	325	57	59	202	35	37
C3 + C3=	23.3	9.7	12.6	5.43	3.73	4.52	287	149	140	178	93	87
C=C=C	0.6	0.2	0.3	0.13	0.06	0.09	7	2	3	4	1	2
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	3.0	2.2	2.5	0.69	0.86	0.89	38	35	28	23	22	18
B1 + IB	14.7	6.8	8.6	3.43	2.63	3.07	182	105	95	113	65	59
NC4 +B=1=3	12.7	10.5	10.6	2.95	4.04	3.77	162	167	121	100	104	75
TBUTENE-2	2.5	1.7	1.8	0.59	0.67	0.64	31	27	20	19	17	12
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.9	1.3	1.3	0.44	0.52	0.48	23	21	15	14	13	9
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.9	0.7	0.7	0.21	0.28	0.25	11	11	8	7	7	5
ISOPENTANE	19.5	16.1	16.8	4.54	6.21	6.00	247	256	191	153	159	119
PENTENE-1	1.0	0.7	0.8	0.23	0.28	0.27	12	11	8	8	7	5
2MBUT-1	0.7	2.0	2.1	0.16	0.76	0.75	9	31	23	5	19	14
NPENTANE	3.8	3.1	3.2	0.88	1.19	1.14	48	49	36	30	31	22
2MB=1=3	0.4	0.5	0.1	0.10	0.18	0.02	5	7	1	3	4	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30603
DATE RUN: 01 15 78
CAR: 1974 CHEVROLET IMPALA VIN: 1169M4Y105643 DRIVER: L J WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	2.5	2.1	2.0	0.59	0.80	0.73	31	32	23	19	20	14
CISPENT-2	1.3	1.0	1.0	0.29	0.37	0.36	16	15	11	10	9	7
2MBUT-2	5.0	2.4	3.8	1.16	0.92	1.34	61	37	42	38	23	26
22MBUTANE	0.4	0.3	0.2	0.09	0.12	0.07	5	5	2	3	3	1
CYPENTENE	0.6	0.5	0.5	0.15	0.18	0.18	8	7	5	5	4	3
3MPENTENE	0.4	0.3	0.3	0.09	0.12	0.11	5	5	4	3	3	2
CYPENTANE	0.4	0.4	0.6	0.09	0.15	0.23	5	6	7	3	4	4
23MBUTANE	5.5	4.0	6.2	1.28	1.56	2.23	69	64	71	43	40	44
2MPENTANE	11.0	9.7	7.8	2.57	3.73	2.79	139	153	89	86	95	55
3MPENTANE	5.8	4.6	4.5	1.35	1.77	1.61	73	73	51	45	45	32
HEXENE-1	1.6	1.3	1.0	0.37	0.49	0.36	19	20	11	12	12	7
N HEXANE	3.1	2.2	2.5	0.73	0.86	0.89	40	35	28	25	22	17
TC6=3,=2	2.8	2.1	2.2	0.66	0.83	0.80	35	33	25	22	21	15
CC6=3	0.9	0.6	0.8	0.21	0.24	0.30	11	10	9	7	6	6
2MPENTENE2	1.3	0.9	0.9	0.29	0.34	0.32	16	13	10	10	8	6
MCYP43M2C5	4.6	3.3	3.4	1.07	1.25	1.20	57	50	37	35	31	23
24MPENTANE	7.3	5.2	5.3	1.70	1.99	1.89	92	81	60	57	50	37
BENZENE	14.3	5.9	7.2	3.33	2.26	2.59	163	84	74	102	52	46
CYHEXANE	1.0	0.8	1.5	0.23	0.31	0.52	12	12	16	8	8	10
2MC6+23MC5	17.1	12.3	12.8	3.99	4.74	4.57	215	194	144	134	120	90
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	4.6	3.3	3.4	1.07	1.25	1.23	58	51	39	36	32	24
224MPENTAN	33.4	24.0	24.3	7.79	9.27	8.70	419	377	274	261	235	170
NHEPTANE	4.2	3.0	3.0	0.97	1.16	1.07	52	47	34	32	29	21
MCYHEXANE	2.0	1.4	1.8	0.47	0.55	0.66	25	22	20	15	14	13
25MHEXANE	4.8	3.4	3.4	1.13	1.32	1.20	61	54	38	38	33	24
24MC6+233M	4.1	2.9	2.9	0.95	1.13	1.04	51	46	33	32	29	20
234MC5	13.5	8.6	9.2	3.16	3.30	3.27	170	135	103	106	84	64
TOLUENE	30.9	19.4	20.7	7.21	7.49	7.38	358	282	215	222	175	133
23MC6+4MC7	4.2	3.0	2.9	0.98	1.16	1.04	53	47	33	33	29	20

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30603
DATE RUN: 01 15 78
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: L J WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	3.7	2.5	2.5	0.85	0.98	0.89	46	40	28	28	25	17
3MHEPTANE	3.3	2.2	2.2	0.78	0.86	0.80	42	35	25	26	22	16
255MC6	4.8	3.1	3.2	1.12	1.19	1.14	60	48	36	37	30	22
N OCTANE	1.3	1.0	1.0	0.31	0.40	0.36	17	16	11	10	10	7
223MC6	0.6	0.3	0.4	0.15	0.12	0.16	8	5	5	5	3	3
ETCYHEXANE	1.0	0.6	0.5	0.23	0.24	0.18	12	10	6	8	6	3
ET HENZENE	4.6	2.6	2.7	1.07	1.01	0.98	54	38	29	33	24	18
M+PXYLENE	15.5	9.8	10.6	3.61	3.76	3.77	181	142	111	112	89	69
2+4MC8	1.9	1.3	1.2	0.44	0.49	0.43	24	20	14	15	12	8
O XYLENE	5.8	3.9	4.2	1.35	1.50	1.50	68	57	44	42	35	27
N NONANE	1.1	0.8	0.8	0.26	0.31	0.30	14	12	9	9	8	6
IPRBENZENE	0.9	0.7	0.8	0.22	0.28	0.27	11	10	8	7	7	5
NPRBENZENE	0.8	0.6	0.7	0.18	0.24	0.25	9	9	7	6	6	5
1M3ETBENZ	4.1	3.3	3.7	0.95	1.28	1.32	48	49	39	30	30	24
135MEBENZ	1.3	1.3	1.3	0.31	0.49	0.48	16	19	14	10	12	9
1M2ETBENZ	1.3	1.1	1.3	0.31	0.43	0.48	16	16	14	10	10	9
124MBENZ	3.6	3.6	4.1	0.84	1.41	1.45	42	54	43	26	33	27
SBUBENZENE	0.2	0.2	0.4	0.04	0.09	0.16	2	4	5	1	2	3
N DECANE	0.0	0.0	0.1	0.00	0.00	0.02	0	0	1	0	0	0
123MBENZ	0.5	0.6	0.6	0.12	0.24	0.23	6	9	7	4	6	4
INDANE	0.1	0.2	0.2	0.03	0.06	0.07	1	2	2	1	1	1
13EBENZENE	0.1	0.1	0.1	0.01	0.03	0.02	1	1	1	0	1	0
NBUBENZENE	0.4	0.6	0.6	0.09	0.21	0.20	4	8	6	3	5	4
1M3PRBENZ	0.4	0.6	0.6	0.09	0.24	0.23	4	9	7	3	6	4
UNKNOWNS	17.6	16.6	13.5	4.11	6.39	4.82	208	245	143	129	152	89

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30701
DATE RUN: 12 12 77
CAR: 1974 CHEVROLET IMPALA VIN: 1169M4Y105643 DRIVER: L J WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 70

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	410.0	120.3	297.6
GC PPMC	355.2	94.6	282.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	15.8	2.5	6.6	4.45	2.65	2.34	242	61	89	150	38	56
SATURATES	158.0	39.6	150.3	44.49	41.89	53.25	2166	859	1821	1346	534	1132
OLEFINS	76.7	20.2	58.7	21.59	21.39	20.79	1026	428	695	638	266	432
ACETYLENE	19.8	3.2	6.3	5.56	3.34	2.23	245	62	69	153	39	43
NAPTHENES	7.8	1.9	7.8	2.21	1.96	2.75	105	39	92	65	24	57
AROMATICS	64.4	17.2	42.1	18.12	18.17	14.92	809	342	468	503	212	291
BENZENE	11.9	2.9	7.6	3.34	3.09	2.69	147	57	83	92	36	52
TOLUENE	25.0	6.6	17.3	7.04	7.00	6.13	314	132	192	195	82	119
C8+AROM	27.5	7.6	17.2	7.74	8.08	6.11	351	154	195	218	96	121
UNKNOWN	12.7	10.0	10.5	0.00	0.00	0.00	162	203	119	101	126	74
INDIVIDUAL COMPONENTS												
METHANE	15.8	2.5	6.6	4.45	2.65	2.34	242	61	89	150	38	56
ETHYLENE	21.4	5.9	13.3	6.01	6.25	4.72	286	125	158	178	78	98
ETHANE	2.8	0.7	1.7	0.78	0.76	0.58	40	16	21	25	10	13
ACETYLENE	19.8	3.2	6.3	5.56	3.34	2.23	245	62	69	153	39	43
C3 + C3=	22.0	5.6	13.1	6.20	5.87	4.66	294	117	156	183	73	97
C=C=C	0.8	0.1	0.4	0.23	0.06	0.15	11	1	5	7	1	3
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	3.1	0.7	5.1	0.86	0.69	1.80	43	14	62	26	9	39
B1 + IB	12.2	3.4	9.0	3.44	3.60	3.20	163	72	107	102	45	67
NC4 +B=1=3	9.9	3.3	16.6	2.79	3.53	5.89	137	73	204	85	46	127
TBUTENE-2	1.9	0.5	2.0	0.53	0.57	0.71	25	11	24	16	7	15
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.5	0.4	1.8	0.42	0.38	0.65	20	8	22	12	5	13
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.7	0.2	0.8	0.20	0.25	0.28	9	5	9	6	3	6
ISOPENTANE	17.3	4.8	23.1	4.87	5.05	8.19	238	104	281	148	65	175
PENTENE-1	0.8	0.2	1.1	0.23	0.19	0.39	11	4	13	7	2	8
2MBUT-1	2.1	0.6	2.5	0.60	0.63	0.89	28	13	30	18	8	18
NPENTANE	3.3	1.0	4.3	0.93	1.01	1.52	45	21	52	28	13	32
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30701
DATE RUN: 12 12 77
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: L J WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	1.9	0.5	2.6	0.55	0.50	0.93	26	10	31	16	6	19
CISPENT-2	1.0	0.2	1.4	0.28	0.19	0.50	13	4	17	8	2	10
2MBUT-2	3.8	1.1	4.2	1.08	1.14	1.47	51	23	49	32	14	31
22MBUTANL	0.2	0.0	0.2	0.05	0.00	0.09	2	0	3	2	0	2
CYPENTENE	0.5	0.1	0.9	0.15	0.13	0.30	7	2	10	4	2	6
3MPLNTENE	0.4	0.1	0.3	0.12	0.13	0.11	6	3	4	3	2	2
CYPENTANE	0.4	0.1	1.2	0.12	0.13	0.41	6	3	14	3	2	9
23MBUTANE	5.0	1.1	5.3	1.41	1.20	1.86	69	25	64	43	15	40
2MPENTANE	12.1	4.2	8.6	3.40	4.48	3.03	166	92	104	103	57	64
3MPENTANE	5.6	1.3	5.1	1.58	1.39	1.82	77	28	62	48	18	39
HEXENE-1	1.6	0.5	1.3	0.45	0.57	0.46	21	11	16	13	7	10
N HEXANE	2.9	0.7	2.8	0.81	0.69	0.97	40	14	33	25	9	21
TC6=3,=2	2.2	0.5	2.0	0.63	0.57	0.71	30	11	24	19	7	15
CC6=3	0.7	0.1	0.9	0.20	0.13	0.30	9	3	10	6	2	6
2MPENTENE2	1.0	0.2	0.9	0.28	0.25	0.32	13	5	11	8	3	7
MCYP43M2C5	4.0	1.0	3.7	1.13	1.01	1.32	54	20	44	33	13	27
24MPENTANE	6.5	1.5	5.7	1.84	1.58	2.01	89	32	69	56	20	43
BENZENE	11.9	2.9	7.6	3.34	3.09	2.69	147	57	83	92	36	52
CYHEXANE	0.9	0.2	1.0	0.27	0.25	0.35	13	5	12	8	3	7
2MC6+23MC5	16.0	3.6	13.4	4.50	3.79	4.76	218	77	162	136	48	101
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	4.4	1.0	3.6	1.23	1.01	1.28	60	21	44	37	13	27
224MPENTAN	30.0	7.2	24.6	8.45	7.57	8.71	409	154	296	254	96	184
NHEPTANE	3.6	0.8	2.8	1.01	0.88	0.97	49	18	33	31	11	21
MCYHEXANE	1.7	0.4	1.3	0.48	0.44	0.48	23	9	16	14	5	10
25MHEXANE	4.4	1.1	3.4	1.23	1.20	1.21	59	24	41	37	15	26
24MC6+233M	3.2	0.5	2.5	0.90	0.57	0.89	43	12	30	27	7	19
234MC5	12.4	2.3	10.2	3.50	2.46	3.62	170	50	123	105	31	76
TOLUENE	25.0	6.6	17.3	7.04	7.00	6.13	314	132	192	195	82	119
23MC6+4MC7	3.3	0.8	2.5	0.93	0.88	0.89	45	18	30	28	11	19

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30701
DATE RUN: 12 12 77
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: L J WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.8	0.7	2.1	0.78	0.69	0.76	38	14	26	23	9	16
3MHEPTANE	2.5	0.6	1.8	0.70	0.63	0.65	34	13	22	21	8	14
255MC6	3.4	0.9	2.6	0.96	0.95	0.91	47	19	31	29	12	19
N OCTANE	1.0	0.2	0.7	0.28	0.25	0.26	14	5	9	8	3	5
223MC6	0.3	0.1	0.2	0.08	0.13	0.09	4	3	3	2	2	2
ETCYHEXANE	0.8	0.1	0.6	0.22	0.13	0.19	10	3	7	6	2	4
ET BENZENE	4.2	0.8	2.4	1.18	0.82	0.84	53	16	27	33	10	17
M+PXYLENE	10.7	2.9	7.2	3.02	3.09	2.53	136	59	80	84	36	50
2+4MC8	1.2	0.3	0.9	0.35	0.32	0.32	17	6	11	10	4	7
O XYLENE	3.7	1.1	2.5	1.05	1.14	0.89	47	22	28	29	13	17
N NONANE	0.7	0.2	0.5	0.20	0.19	0.17	10	4	6	6	2	4
IPRBENZENE	0.5	0.2	0.4	0.15	0.19	0.15	7	4	5	4	2	3
NPRBENZENE	0.5	0.1	0.3	0.13	0.13	0.11	6	2	3	4	1	2
1M3ETBENZ	2.4	0.8	1.6	0.68	0.82	0.56	31	16	18	19	10	11
135MEBENZ	0.8	0.3	0.5	0.23	0.32	0.17	11	6	6	7	4	3
1M2ETBENZ	0.8	0.2	0.6	0.22	0.25	0.19	10	5	6	6	3	4
124MBENZ	2.4	0.8	1.3	0.66	0.82	0.45	30	16	14	19	10	9
SBUBENZENE	0.1	0.1	0.1	0.02	0.06	0.04	1	1	1	0	1	1
N DECANE	0.2	0.0	0.0	0.05	0.00	0.00	2	0	0	1	0	0
123MBENZ	0.5	0.1	0.2	0.13	0.13	0.06	6	2	2	4	1	1
INDANE	0.1	0.1	0.1	0.03	0.06	0.02	1	1	1	1	1	0
13EBENZENE	0.1	0.0	0.0	0.02	0.00	0.00	1	0	0	0	0	0
NBUBENZENE	0.3	0.1	0.0	0.08	0.13	0.00	4	2	0	2	2	0
1M3PRBENZ	0.5	0.1	0.2	0.13	0.13	0.06	6	2	2	4	2	1
UNKNOWNS	12.7	10.0	10.5	3.57	10.60	3.72	162	203	119	101	126	74

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30702
DATE RUN: 01 14 78
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVEN: L J WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 70

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	371.7	199.9	292.0
GC PPMC	309.0	191.3	301.6

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	19.6	3.5	6.5	6.34	1.84	2.16	297	70	79	185	44	49
SATURATES	126.4	100.9	143.6	41.57	52.76	47.60	1743	1808	1560	1083	1124	969
OLEFINS	84.9	38.0	54.7	27.47	19.88	18.15	1125	665	581	699	414	361
ACETYLENE	21.7	3.8	6.3	7.01	1.98	2.09	267	61	62	166	38	39
NAPTHENES	7.0	4.8	6.9	2.26	2.50	2.29	92	84	73	57	52	46
AROMATICS	37.4	33.3	68.4	12.11	17.41	22.68	466	547	682	289	340	424
BENZENE	12.4	4.7	9.6	4.02	2.46	3.19	153	77	95	95	48	59
TOLUENE	2.3	13.5	24.2	0.74	7.04	8.03	28	221	241	18	138	150
C8+AROM	22.7	15.1	34.6	7.35	7.91	11.46	287	253	350	179	157	218
UNKNOWN	10.0	7.0	15.2	0.00	0.00	0.00	127	117	154	79	73	96
INDIVIDUAL COMPONENTS												
METHANE	19.6	3.5	6.5	6.34	1.84	2.16	297	70	79	185	44	49
ETHYLENE	25.1	7.8	12.5	8.11	4.09	4.14	332	137	132	206	85	82
ETHANE	3.4	0.9	1.6	1.09	0.49	0.53	48	17	18	30	11	11
ACETYLENE	21.1	3.8	6.3	6.81	1.98	2.09	259	61	62	161	38	39
C3 + C3=	24.1	8.6	12.3	7.80	4.47	4.09	319	150	131	198	93	81
C=C=C	0.7	0.2	0.3	0.22	0.10	0.09	9	3	3	5	2	2
METHACETYL	0.6	0.0	0.0	0.20	0.00	0.00	8	0	0	5	0	0
ISOBUTANE	2.3	1.9	3.2	0.76	0.97	1.06	32	34	35	20	21	22
B1 + IB	14.8	5.8	8.5	4.80	3.05	2.82	197	102	90	122	64	56
NC4 +B=1=3	10.8	8.4	13.1	3.48	4.41	4.33	148	153	144	92	95	89
TBUTENE-2	2.2	1.5	2.0	0.71	0.76	0.66	29	26	21	18	16	13
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.7	1.1	1.5	0.54	0.59	0.51	22	20	16	14	12	10
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.8	0.6	0.7	0.27	0.31	0.24	11	10	8	7	6	5
ISOPENTANE	14.6	12.2	19.2	4.71	6.38	6.36	199	220	209	123	137	130
PENTENE-1	0.8	0.6	0.9	0.27	0.31	0.29	11	10	9	7	6	6
2MBUT-1	2.1	1.6	2.2	0.69	0.83	0.73	28	28	23	18	17	14
NPENTANE	2.8	2.3	3.6	0.89	1.21	1.19	38	42	39	23	26	24
2MB=1=3	0.7	0.5	0.1	0.22	0.24	0.04	9	8	1	6	5	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30702
DATE RUN: 01 14 78
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: L J WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	1.8	1.7	2.2	0.58	0.87	0.73	24	29	23	15	18	14
CISPENT-2	0.8	0.7	1.1	0.25	0.38	0.35	10	13	11	6	8	7
2MBUT-2	3.5	3.0	4.1	1.14	1.56	1.36	47	52	44	29	32	27
22MBUTANE	0.6	7.0	0.2	0.20	3.64	0.07	8	125	2	5	78	1
CYPENTENE	0.6	0.3	0.5	0.20	0.17	0.18	8	6	5	5	4	3
3MPENTENE	0.4	0.2	0.3	0.13	0.10	0.11	5	3	4	3	2	2
CYPENTANE	1.3	0.2	0.3	0.42	0.10	0.11	17	3	4	11	2	2
23MBUTANE	4.7	3.1	4.5	1.52	1.63	1.50	64	56	49	40	35	30
2MPENTANE	7.4	6.8	9.1	2.39	3.54	3.01	100	121	99	62	75	61
3MPENTANE	4.4	3.1	5.1	1.43	1.63	1.69	60	56	56	37	35	34
HEXENE-1	1.2	0.9	1.3	0.40	0.45	0.42	16	15	13	10	9	8
N HEXANE	2.3	1.7	2.6	0.74	0.87	0.86	31	30	28	19	18	17
TC6=3,=2	2.1	1.7	2.4	0.67	0.87	0.79	27	29	25	17	18	16
CC6=3	0.6	0.6	0.9	0.20	0.31	0.29	8	10	9	5	6	6
2MPENTENE2	0.8	0.7	1.0	0.27	0.38	0.33	11	13	11	7	8	7
MCYP43M2C5	3.2	2.5	3.6	1.03	1.32	1.19	42	44	38	26	27	24
24MPENTANE	5.2	4.0	5.7	1.68	2.08	1.89	70	71	62	44	44	38
BENZENE	12.4	4.7	9.6	4.02	2.46	3.19	153	77	95	95	48	59
CYHEXANE	0.8	0.6	0.8	0.27	0.31	0.26	11	10	8	7	6	5
2MC6+23MC5	12.3	8.7	13.3	3.98	4.54	4.40	166	155	144	103	96	89
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.3	2.3	3.5	1.07	1.18	1.17	45	40	38	28	25	24
224MPENTAN	23.9	17.0	25.5	7.73	8.88	8.45	322	303	275	200	188	171
MHEPTANE	3.0	2.1	3.2	0.96	1.08	1.06	40	37	34	25	23	21
MCYHEXANE	1.4	1.1	1.5	0.45	0.55	0.51	18	19	16	11	12	10
25MHEXANE	3.9	2.3	3.6	1.25	1.18	1.21	52	40	39	32	25	24
24MC6+233M	2.3	2.1	2.9	0.74	1.08	0.97	31	37	32	19	23	20
234MC5	8.6	5.9	9.5	2.77	3.09	3.15	115	105	102	72	65	64
TOLUENE	2.3	13.5	24.2	0.74	7.04	8.03	28	221	241	18	138	150
23MC6+4MC7	2.8	2.0	3.1	0.89	1.04	1.01	37	35	33	23	22	20

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30702
DATE RUN: 01 14 78
CAR: 1974 CHEVROLET IMPALA VIN: 1169M4Y105643 DRIVER: L J WARD FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
3+4MHEXANE		2.3	1.7	2.5		0.74	0.87	0.84		31	30	27		19	18	17
3MHEPTANE		2.0	1.5	2.2		0.65	0.76	0.73		27	26	24		17	16	15
255MC6		3.0	2.1	3.1		0.96	1.08	1.03		40	37	34		25	23	21
N OCTANE		0.8	0.7	0.9		0.27	0.35	0.31		11	12	10		7	7	6
223MC6		0.3	0.3	0.3		0.09	0.14	0.11		4	5	4		2	3	2
ETCYHEXANE		0.3	0.4	0.7		0.09	0.21	0.22		4	7	7		2	4	4
ET BENZENE		3.0	1.7	3.6		0.96	0.87	1.19		37	27	36		23	17	22
M+PXYLENE		9.6	5.8	13.8		3.10	3.02	4.58		120	96	139		75	59	86
2+4MC8		1.1	0.8	1.4		0.36	0.42	0.46		15	14	15		9	9	9
O XYLENE		3.5	2.2	4.8		1.14	1.14	1.61		44	36	49		27	23	30
N NONANE		0.7	0.5	0.7		0.22	0.24	0.24		9	8	8		6	5	5
IPRBENZENE		0.5	0.4	0.6		0.16	0.21	0.20		6	7	6		4	4	4
NPRBENZENE		0.4	0.3	0.6		0.13	0.14	0.20		5	4	6		3	3	4
1M3ETBENZ		2.1	1.5	3.7		0.69	0.80	1.23		27	25	38		17	16	23
135MEBENZ		0.7	0.6	1.2		0.22	0.31	0.40		9	10	12		5	6	7
1M2ETBENZ		0.6	0.5	0.9		0.20	0.28	0.29		8	9	9		5	5	5
124MBENZ		1.7	1.5	3.6		0.56	0.80	1.21		22	25	37		14	16	23
SBUBENZENE		0.1	0.1	0.1		0.02	0.03	0.04		1	1	1		1	1	1
N DECANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
123MBENZ		0.2	0.2	0.5		0.07	0.10	0.18		3	3	5		2	2	3
INDANE		0.0	0.1	0.1		0.00	0.03	0.04		0	1	1		0	1	1
13EBENZENE		0.1	0.0	0.1		0.04	0.00	0.02		2	0	1		1	0	0
NBUBENZENE		0.0	0.2	0.4		0.00	0.10	0.13		0	3	4		0	2	3
1M3PRBENZ		0.1	0.1	0.5		0.04	0.07	0.15		2	2	5		1	1	3
UNKNOWNS		10.0	7.0	15.2		3.24	3.64	5.04		127	117	154		79	73	96

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30801
DATE RUN: 12 13 77
CAR: 1974 CHEVROLET IMPALA VIN: 1169H9Y105643 DRIVER: SWARTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	448.4	136.4	433.8
GC PPMC	393.0	110.2	423.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	17.7	3.4	10.3	4.49	3.09	2.44	263	82	135	164	51	84
SATURATES	189.3	50.3	238.0	48.17	45.65	56.22	2528	1085	2793	1571	674	1736
OLEFINS	87.8	26.0	78.4	22.35	23.58	18.52	1146	547	899	712	340	559
ACETYLENE	21.6	3.6	10.9	5.49	3.48	2.57	261	75	116	162	47	72
NAPTHENES	9.4	2.2	10.7	2.39	1.97	2.52	123	46	122	76	28	76
AROMATICS	65.7	17.6	59.8	16.71	16.00	14.13	804	349	644	500	217	400
BENZENE	13.3	3.5	10.5	3.38	3.14	2.48	161	68	112	100	42	69
TOLUENE	27.8	7.2	23.7	7.08	6.51	5.60	341	142	255	212	88	159
C8+AROM	24.6	7.0	25.6	6.25	6.34	6.05	306	141	280	190	87	174
UNKNOWN	1.5	6.9	15.2	0.00	0.00	0.00	19	138	167	12	86	104
INDIVIDUAL COMPONENTS												
METHANE	17.7	3.4	10.3	4.49	3.09	2.44	263	82	135	164	51	84
ETHYLENE	25.5	7.2	16.3	6.50	6.57	3.79	333	152	184	207	95	114
ETHANE	3.4	1.2	2.1	0.87	1.12	0.50	48	28	26	30	17	16
ACETYLENE	21.6	3.6	10.9	5.49	3.48	2.57	261	75	116	162	47	72
C3 + C3=	23.1	6.6	14.4	5.87	6.01	3.40	301	139	165	187	87	102
C=C=C	0.6	0.1	0.2	0.15	0.11	0.06	7	2	3	4	2	2
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	2.8	0.9	6.9	0.71	0.84	1.63	38	20	82	23	13	51
B1 + IB	14.2	4.1	10.6	3.62	3.76	2.49	186	87	121	115	54	75
NC4 +B=1=3	11.6	4.4	27.1	2.96	3.99	6.40	157	96	322	98	60	200
TBUTENE-2	2.3	0.8	3.3	0.58	0.73	0.79	30	17	38	19	11	24
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.8	0.6	2.9	0.45	0.51	0.69	23	12	33	14	7	21
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.8	0.3	1.0	0.21	0.28	0.25	11	7	12	7	4	7
ISOPENTANE	19.6	6.0	37.5	4.98	5.45	8.87	263	138	443	163	81	275
PENTENE-1	1.0	0.2	1.6	0.24	0.22	0.38	12	5	18	8	3	11
2MBUT-1	2.5	0.8	3.9	0.63	0.73	0.92	32	17	45	20	11	28
NPENTANE	3.7	1.2	6.8	0.95	1.12	1.60	50	27	80	31	17	50
2MB=1=3	0.0	0.2	0.2	0.00	0.22	0.04	0	5	2	0	3	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30801
DATE RUN: 12 13 77
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
TPENT-2	2.2	0.8	4.3	0.55	0.73	1.01	28	17	49	18	11	30
CISPENT-2	1.1	0.3	2.2	0.29	0.28	0.53	15	7	25	9	4	16
2MBUT-2	4.8	1.5	7.7	1.21	1.35	1.81	62	31	88	39	19	55
22MBUTANE	0.3	0.0	0.4	0.06	0.00	0.09	3	0	4	2	0	3
CYPENTENE	0.6	0.1	0.9	0.16	0.11	0.22	8	3	10	5	2	6
3MPENTENE	0.4	0.1	0.6	0.11	0.11	0.15	6	3	7	4	2	4
CYPENTANE	0.5	0.1	0.7	0.13	0.11	0.18	7	3	8	4	2	5
23MBUTANE	6.2	1.4	8.1	1.57	1.29	1.91	82	31	95	51	19	59
2MPENTANE	13.7	3.4	16.4	3.49	3.09	3.86	183	73	192	114	46	119
3MPENTANE	6.4	1.6	8.3	1.62	1.46	1.95	85	35	97	53	22	60
HEXENE-1	1.8	0.6	2.1	0.47	0.51	0.50	24	12	24	15	7	15
N HEXANE	3.4	0.8	4.3	0.86	0.73	1.02	45	17	51	28	11	32
TC6=3,=2	2.9	0.8	3.6	0.73	0.73	0.86	37	17	42	23	11	26
CC6=3	0.9	0.3	1.1	0.23	0.28	0.26	12	7	13	7	4	8
2MPENTENE2	1.4	0.4	1.7	0.36	0.34	0.39	18	8	19	11	5	12
MCYP4M2C5	4.9	1.2	5.9	1.24	1.07	1.39	64	25	67	40	15	42
24MPENTANE	8.0	1.9	9.1	2.04	1.68	2.16	107	40	107	66	25	66
BENZENE	13.3	3.5	10.5	3.38	3.14	2.48	161	68	112	100	42	69
CYHEXANE	1.1	0.3	1.3	0.27	0.28	0.31	14	7	15	9	4	9
2MC6+23MC5	19.8	4.3	21.1	5.03	3.87	4.97	263	92	246	163	57	153
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	5.3	1.1	5.6	1.36	1.01	1.31	71	24	65	44	15	40
224MPENTAN	37.5	8.4	37.8	9.53	7.58	8.94	497	179	442	309	111	274
NHEPTANE	4.6	1.0	4.7	1.18	0.90	1.11	62	21	55	38	13	34
MCYHEXANE	2.1	0.4	2.0	0.53	0.39	0.47	27	9	23	17	6	14
25MHEXANE	5.3	4.8	5.1	1.36	4.38	1.20	71	103	59	44	64	37
24MC6+233M	4.1	0.9	3.9	1.03	0.79	0.92	54	19	45	34	12	28
234MC5	15.8	2.8	16.4	4.02	2.58	3.88	210	61	192	130	38	119
TOLUENE	27.8	7.2	23.7	7.08	6.51	5.60	341	142	255	212	88	159
23MC6+4MC7	4.1	0.9	3.7	1.03	0.84	0.88	54	20	43	34	12	27

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30F01
DATE RUN: 12 13 77
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: SWANTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
34MHEXANE		3.4	0.7	3.1		0.86	0.67	0.74		45	16	37		28	10	23
3MHEPTANE		2.9	0.7	2.7		0.74	0.62	0.64		39	15	32		24	9	20
25DMC6		4.1	1.0	3.8		1.05	0.90	0.89		55	21	44		34	13	27
N OCTANE		1.0	0.2	0.9		0.26	0.22	0.22		13	5	11		8	3	7
223MC6		0.4	0.1	0.3		0.10	0.06	0.07		5	1	4		3	1	2
ETCYHEXANE		0.8	0.1	0.8		0.21	0.11	0.19		11	3	9		7	2	6
ET BENZENE		4.2	0.7	4.0		1.07	0.67	0.93		52	15	43		32	9	27
M+PXYLENE		10.2	2.8	9.4		2.59	2.53	2.22		125	55	102		78	34	63
2+4MC8		1.3	0.3	1.2		0.34	0.28	0.29		18	7	14		11	4	9
O XYLENE		3.5	1.1	3.2		0.89	0.95	0.76		43	21	35		27	13	22
N NONANE		0.7	0.2	0.7		0.18	0.17	0.16		9	4	8		6	2	5
IPRBENZENE		0.5	0.2	0.6		0.13	0.17	0.13		6	4	6		4	2	4
NPRBENZENE		0.4	0.1	0.6		0.11	0.11	0.13		6	2	6		3	2	4
1M3ETBENZ		2.1	0.7	2.4		0.53	0.62	0.57		26	14	26		16	8	16
135MEBENZ		0.7	0.2	0.9		0.18	0.22	0.20		9	5	9		5	3	6
1M2ETBENZ		0.7	0.2	0.9		0.18	0.17	0.22		9	4	10		5	2	6
124MBENZ		1.7	0.7	2.4		0.42	0.67	0.57		21	15	26		13	9	16
SBUBENZENE		0.1	0.0	0.1		0.02	0.00	0.03		1	0	1		0	0	1
N DECANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
123MBENZ		0.3	0.1	0.4		0.06	0.11	0.09		3	2	4		2	2	3
INDANE		0.1	0.0	0.1		0.02	0.00	0.03		1	0	1		0	0	1
1SEBENZENE		0.1	0.0	0.0		0.02	0.00	0.00		1	0	0		0	0	0
NBUBENZENE		0.0	0.1	0.4		0.00	0.11	0.09		0	2	4		0	2	3
1M3PRBENZ		0.2	0.0	0.4		0.05	0.00	0.09		2	0	4		1	0	3
UNKNOWNS		1.5	6.9	15.2		0.39	6.23	3.60		19	138	167		12	86	104

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30802
DATE RUN: 12 20 77
CAR: 1974 CHEVROLET IMPALA VIN: 1[illegible]AY105043 DRIVER: E J WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	351.5	144.2	425.5
GC PPMC	333.1	147.9	436.4

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	9.6	3.9	7.7	2.89	2.62	1.77	126	69	95	78	43	59
SATURATES	157.0	64.1	238.0	47.12	43.32	54.55	1839	1018	2617	1143	633	1626
OLEFINS	72.5	32.6	74.6	21.75	22.06	17.08	829	507	800	515	315	497
ACETYLENE	9.6	4.5	7.6	2.88	3.04	1.74	102	65	76	63	40	47
NAPTHENES	9.0	3.0	11.4	2.69	2.03	2.62	103	47	123	64	29	76
AROMATICS	62.8	30.6	75.8	18.84	20.67	17.37	674	446	764	419	277	475
BENZENE	10.0	4.4	10.2	3.00	2.99	2.35	106	64	102	66	40	63
TOLUENE	23.6	10.7	27.9	7.08	7.21	6.40	253	155	282	157	97	175
C8+AROM	29.2	15.5	37.6	8.76	10.47	8.62	318	229	386	198	143	240
UNKNOWN	12.7	9.2	21.2	0.00	0.00	0.00	139	137	218	87	85	135
INDIVIDUAL COMPONENTS												
METHANE	9.6	3.9	7.7	2.89	2.62	1.77	126	69	95	78	43	59
ETHYLENE	18.1	8.8	13.8	5.44	5.93	3.16	207	136	148	129	85	92
ETHANE	2.2	1.1	1.7	0.67	0.75	0.38	28	18	19	17	11	12
ACETYLENE	9.6	4.5	7.6	2.88	3.04	1.74	102	65	76	63	40	47
C3 + C3=	18.1	8.4	14.6	5.44	5.66	3.34	207	130	156	129	81	97
C=C=C	0.5	0.1	0.2	0.15	0.05	0.05	5	1	2	3	1	2
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	2.8	1.0	5.6	0.84	0.69	1.29	33	17	63	21	10	39
B1 + IB	11.2	5.2	10.2	3.35	3.53	2.35	128	81	110	79	50	68
NC4 +B=1=3	10.9	5.5	23.1	3.28	3.69	5.29	129	88	257	80	54	159
TBUTENE-2	2.0	0.9	3.1	0.60	0.64	0.70	23	15	33	14	9	20
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.6	0.6	2.6	0.47	0.43	0.60	18	10	28	11	6	18
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.8	0.4	1.1	0.24	0.27	0.25	9	6	12	6	4	7
ISOPENTANE	17.5	7.8	34.3	5.26	5.29	7.87	206	125	379	128	78	236
PENTENE-1	0.9	0.3	1.5	0.27	0.21	0.34	10	5	16	6	3	10
2MBUT-1	2.3	1.0	3.7	0.69	0.69	0.84	26	16	39	16	10	24
NPENTANE	3.5	1.6	6.4	1.04	1.07	1.46	41	25	70	25	16	44
2MB=1=3	0.4	0.4	0.2	0.11	0.27	0.04	4	6	2	3	4	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30802
DATE RUN: 12 20 77
CAR: 1974 CHEVROLET IMPALA VIN: 1169H6Y105643 DRIVER: L J WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	2.3	1.0	4.0	0.69	0.69	0.92	26	16	43	16	10	27
CISPENT-2	1.1	0.4	2.1	0.33	0.27	0.48	12	6	23	8	4	14
2MBUT-2	4.5	2.1	7.4	1.35	1.39	1.69	51	32	79	32	20	49
22MBUTANE	0.4	0.2	0.4	0.11	0.16	0.08	4	4	4	3	2	2
CYPENTENE	1.3	0.2	0.9	0.38	0.16	0.21	14	4	9	9	2	6
3MPENTENE	1.3	0.2	0.6	0.40	0.11	0.14	15	2	6	9	2	4
CYPENTANE	1.3	0.2	0.7	0.40	0.11	0.15	15	2	7	9	2	4
23MBUTANE	5.8	2.1	7.7	1.75	1.39	1.76	68	33	84	42	20	52
2MPENTANE	9.7	4.0	14.6	2.91	2.67	3.35	114	63	161	71	39	100
3MPENTANE	5.6	2.2	8.3	1.67	1.50	1.91	65	35	92	41	22	57
HEXENE-1	1.5	0.6	2.0	0.46	0.43	0.47	17	10	22	11	6	14
N HEXANE	2.9	1.1	4.3	0.87	0.75	0.99	34	18	47	21	11	29
TC6=3,=2	2.5	1.1	3.7	0.76	0.75	0.85	29	17	40	18	11	25
CC6=3	0.8	0.4	1.2	0.25	0.27	0.27	10	6	13	6	4	8
2MPENTENE2	1.2	0.5	1.7	0.36	0.32	0.38	14	7	18	9	5	11
MCYP43M2C5	4.2	1.6	6.1	1.26	1.07	1.39	48	25	65	30	15	40
24MPENTANE	6.7	2.6	9.5	2.00	1.76	2.18	78	41	104	48	26	65
BENZENE	10.0	4.4	10.2	3.00	2.99	2.35	106	64	102	66	40	63
CYHEXANE	0.9	0.4	1.4	0.27	0.27	0.33	10	6	15	6	4	10
2MC6+23MC5	15.9	6.2	22.4	4.77	4.17	5.12	185	98	245	115	61	152
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	4.4	1.7	5.9	1.31	1.12	1.36	51	26	65	32	16	40
224MPENTAN	29.8	11.8	40.6	8.96	7.96	9.34	347	186	445	216	116	277
NHEPTANE	3.9	1.4	5.1	1.16	0.96	1.17	45	23	56	28	14	35
MCYHEXANE	1.7	0.6	2.2	0.51	0.43	0.51	19	10	24	12	6	15
25MHEXANE	3.9	1.6	5.2	1.18	1.07	1.19	46	25	57	29	16	35
24MC6+233M	3.6	1.4	4.7	1.07	0.96	1.08	42	22	52	26	14	32
234MC5	12.4	4.2	17.6	3.71	2.83	4.04	144	66	193	90	41	120
TOLUENE	23.6	10.7	27.9	7.08	7.21	6.40	253	155	282	157	97	175
23MC6+4MC7	3.3	1.4	4.3	0.98	0.96	0.99	38	22	47	24	14	29

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30802
DATE RUN: 12 20 77
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: L J WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.7	1.2	3.7	0.82	0.80	0.85	32	19	41	20	12	25
3MHEPTANE	2.4	1.0	3.2	0.73	0.69	0.74	28	16	35	18	10	22
255MC6	3.4	1.5	4.5	1.02	1.01	1.03	39	24	49	25	15	30
N OCTANE	0.9	0.5	1.3	0.27	0.32	0.29	11	7	14	7	5	9
223MC6	0.3	0.2	0.6	0.09	0.11	0.14	4	2	7	2	2	4
ETCYHEXANE	0.8	0.2	1.1	0.25	0.16	0.25	10	4	12	6	2	7
ET BENZENE	4.1	1.3	4.1	1.24	0.91	0.95	45	20	42	28	12	26
M+PXYLENE	10.7	5.0	13.1	3.22	3.37	3.01	116	73	133	72	45	83
2+4MC8	1.3	0.6	1.7	0.40	0.37	0.40	16	9	19	10	5	12
O XYLENE	3.9	2.0	4.9	1.18	1.34	1.11	43	29	49	27	18	31
N NONANE	0.8	0.4	1.0	0.24	0.27	0.23	9	6	11	6	4	7
IPRBENZENE	0.7	0.3	0.9	0.20	0.21	0.21	7	5	9	5	3	6
NPRBENZENE	0.6	0.3	0.8	0.18	0.21	0.19	7	5	9	4	3	5
1M3ETBENZ	2.9	1.7	4.1	0.87	1.18	0.93	32	26	42	20	16	26
135MEBENZ	1.0	0.6	1.4	0.29	0.43	0.33	11	9	15	7	6	9
1M2ETBENZ	1.0	0.6	1.4	0.29	0.37	0.33	11	8	15	7	5	9
124MBENZ	2.8	2.2	4.1	0.84	1.50	0.95	30	33	42	19	20	26
SBUBENZENE	0.2	0.2	0.4	0.05	0.11	0.10	2	2	4	1	1	3
N DECANE	0.0	0.0	0.1	0.00	0.00	0.01	0	0	1	0	0	0
123MBENZ	0.4	0.4	0.8	0.13	0.27	0.18	5	6	8	3	4	5
INDANE	0.1	0.1	0.2	0.04	0.05	0.04	1	1	2	1	1	1
13EBENZENE	0.1	0.0	0.1	0.02	0.00	0.03	1	0	1	0	0	1
NBUBENZENE	0.4	0.4	0.5	0.11	0.27	0.12	4	6	6	2	4	3
1M3PRBENZ	0.3	0.4	0.7	0.09	0.27	0.15	3	6	7	2	4	4
UNKNOWNS	12.7	9.2	21.2	3.82	6.25	4.86	139	137	218	87	85	135

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30901
DATE RUN: 12 14 77
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: L J WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	354.1	165.7	429.5
GC PPMC	357.5	134.9	445.0

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	11.5	4.8	10.4	3.20	3.53	2.34	142	108	127	88	67	79
SATURATES	166.3	61.4	248.4	46.51	45.49	55.81	1842	1251	2717	1145	778	1689
OLEFINS	79.6	29.4	81.3	22.27	21.81	18.28	861	586	869	535	364	540
ACETYLENE	13.5	3.8	8.7	3.76	2.84	1.97	135	71	87	84	44	54
NAPTHENES	9.1	3.0	11.4	2.55	2.21	2.57	99	59	122	61	37	76
AROMATICS	64.5	26.1	68.5	18.05	19.36	15.39	656	489	687	408	304	427
BENZENE	10.9	3.9	10.9	3.04	2.89	2.44	109	72	108	68	45	67
TOLUENE	24.6	9.5	26.4	6.88	7.01	5.93	250	177	265	155	110	164
C8+AROM	29.1	12.8	31.3	8.14	9.46	7.03	301	243	319	187	151	198
UNKNOWN	13.1	6.4	16.2	0.00	0.00	0.00	135	122	166	84	76	103
INDIVIDUAL COMPONENTS												
METHANE	11.5	4.8	10.4	3.20	3.53	2.34	142	108	127	88	67	79
ETHYLENE	20.8	7.6	15.3	5.83	5.64	3.43	226	151	163	140	94	101
ETHANE	3.7	0.8	1.9	1.04	0.59	0.43	43	17	22	27	11	14
ACETYLENE	12.9	3.8	8.7	3.60	2.84	1.97	129	71	87	80	44	54
C3 + C3=	20.4	7.5	15.4	5.70	5.54	3.46	221	149	164	137	93	102
C=C=C	0.7	0.1	0.0	0.19	0.05	0.00	7	1	0	4	1	0
METHACETYL	0.6	0.0	0.0	0.17	0.00	0.00	6	0	0	4	0	0
ISOBUTANE	2.9	1.2	7.1	0.82	0.88	1.59	33	25	78	20	15	49
B1 + IB	12.7	4.7	11.0	3.54	3.48	2.48	137	94	118	85	58	73
NC4 +B=1=3	13.0	5.9	28.7	3.63	4.36	6.44	146	121	317	91	75	197
TBUTENE-2	2.3	1.0	3.5	0.63	0.74	0.79	25	20	38	15	12	23
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.8	0.7	3.2	0.50	0.54	0.71	19	14	34	12	9	21
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.9	0.4	1.2	0.24	0.29	0.26	9	8	13	6	5	8
ISOPENTANE	17.9	8.0	39.8	5.01	5.93	8.94	200	164	437	124	102	272
PENTENE-1	1.0	0.3	1.6	0.28	0.20	0.36	11	5	17	7	3	11
2MBUT-1	2.5	0.9	4.1	0.69	0.69	0.92	27	18	44	17	11	27
NPENTANE	3.5	1.5	7.1	0.97	1.13	1.65	39	31	80	24	19	50
2MB=1=3	0.9	0.3	0.3	0.26	0.20	0.07	10	5	3	6	3	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30901
DATE RUN: 12 14 77
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: L J WARD FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG 1	2	3		BAG 1	2	3		BAG 1	2	3		BAG 1	2	3	
TPENT=2	2.3	0.9	4.5		0.65	0.69	1.00		25	18	48		16	11	30	
CISPENT-2	1.1	0.3	2.3		0.30	0.25	0.52		12	7	25		7	4	15	
2MBUT-2	4.3	1.9	8.4		1.19	1.42	1.88		46	38	90		29	24	56	
22MBUTANE	0.7	0.2	0.4		0.19	0.15	0.10		7	4	5		5	3	3	
CYPENTENE	0.7	0.2	0.9		0.20	0.15	0.21		8	4	10		5	2	6	
3MPENTENE	0.9	0.1	0.6		0.24	0.10	0.14		9	3	7		6	2	4	
CYPENTANE	1.1	0.1	0.8		0.32	0.10	0.18		12	3	9		8	2	5	
23MBUTANE	5.2	1.5	8.3		1.45	1.08	1.97		58	30	91		36	18	57	
2MPENTANE	8.9	4.8	17.4		2.50	3.53	3.92		99	97	191		61	60	119	
3MPENTANE	5.5	2.0	8.7		1.53	1.52	1.95		61	42	95		38	26	59	
HEXENE-1	1.6	0.5	2.3		0.45	0.39	0.52		17	11	25		11	7	15	
N HEXANE	2.9	1.1	4.4		0.82	0.78	0.99		32	22	48		20	13	30	
TC6=3,=2	2.7	1.1	3.8		0.75	0.78	0.86		29	21	41		18	13	26	
CC6=3	0.9	0.4	1.1		0.26	0.29	0.25		10	8	12		6	5	7	
2MPENTENE2	1.3	0.5	1.8		0.35	0.39	0.40		14	11	19		9	7	12	
MCYP4JM2C5	4.3	1.6	6.1		1.19	1.18	1.38		46	32	66		29	20	41	
24MPENTANE	6.9	2.4	9.4		1.92	1.81	2.12		76	50	103		47	31	64	
BENZENE	10.9	3.9	10.9		3.04	2.89	2.44		109	72	108		68	45	67	
CYHEXANE	1.2	0.4	1.5		0.34	0.29	0.33		13	8	16		8	5	10	
2MC6+23MC5	16.8	5.7	21.6		4.70	4.22	4.85		185	116	235		115	72	146	
24MHEXANE	0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0	
3MHEXANE	4.5	1.5	5.8		1.27	1.13	1.31		50	31	64		31	19	40	
224MPENTAN	31.3	11.0	38.7		8.76	8.19	8.70		345	224	421		214	139	262	
NHEPTANE	3.9	1.3	4.9		1.10	0.98	1.10		43	27	53		27	17	33	
MCYHEXANE	1.7	0.7	2.0		0.47	0.49	0.46		18	13	22		11	8	14	
25MHEXANE	4.3	1.5	5.0		1.21	1.08	1.13		48	29	55		30	18	34	
24MC6+233M	3.6	1.3	4.2		1.01	0.93	0.95		40	25	46		25	16	29	
234MC5	14.7	3.9	16.3		4.10	2.89	3.67		161	79	177		100	49	110	
TOLUENE	24.6	9.5	26.4		6.88	7.01	5.93		250	177	265		155	110	164	
23MC6+4MC7	3.5	1.2	4.0		0.97	0.88	0.89		38	24	43		24	15	27	

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30901
DATE RUN: 12 14 77
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: L J WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
34MHEXANE	2.9	1.0	3.4	0.82	0.74	0.75	32	20	36	20	12	23
3MHEPTANE	2.5	0.9	3.0	0.71	0.69	0.67	26	19	32	17	12	20
255MC6	3.6	1.4	4.1	1.01	1.03	0.92	40	28	44	25	17	28
N OCTANE	1.0	0.4	1.2	0.28	0.29	0.26	11	8	13	7	5	8
223MC6	0.3	0.1	0.4	0.09	0.10	0.08	4	3	4	2	2	3
ETCYHEXANE	0.9	0.2	0.9	0.24	0.15	0.21	9	4	10	6	2	6
ET BENZENE	4.3	1.1	4.4	1.21	0.83	0.99	44	21	45	28	13	28
M+PXYLENE	11.3	4.2	11.7	3.15	3.14	2.64	115	80	119	72	50	74
244MC8	1.4	0.5	1.5	0.39	0.34	0.33	15	9	16	10	6	10
O XYLENE	4.1	1.7	4.3	1.16	1.23	0.96	42	31	43	26	19	27
N NONANE	0.8	0.3	0.9	0.22	0.25	0.20	9	7	9	5	4	6
1PRBENZENE	0.1	0.3	0.7	0.02	0.20	0.17	1	5	8	0	3	5
NPRBENZENE	0.6	0.3	0.6	0.17	0.20	0.14	6	5	6	4	3	4
1M3ETBENZ	2.9	1.5	3.1	0.82	1.13	0.70	30	29	32	19	18	20
135MEBENZ	1.0	0.6	1.1	0.28	0.44	0.24	10	11	11	6	7	7
1M2ETBENZ	0.9	0.5	1.1	0.26	0.34	0.24	10	9	11	6	5	7
124MBENZ	2.6	1.8	2.9	0.73	1.32	0.64	27	34	29	17	21	18
SBUBENZENE	0.1	0.1	0.1	0.04	0.05	0.03	1	1	1	1	1	1
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.3	0.1	0.4	0.09	0.10	0.10	3	3	4	2	2	3
INDANE	0.1	0.1	0.1	0.04	0.05	0.03	1	1	1	1	1	1
13EBENZENE	0.1	0.0	0.0	0.02	0.00	0.00	1	0	0	0	0	0
NBUBENZENE	0.3	0.3	0.4	0.09	0.20	0.08	3	5	4	2	3	2
1M3PRBENZ	0.3	0.3	0.4	0.07	0.25	0.08	3	6	4	2	4	2
UNKNOWNS	13.1	6.4	16.2	3.65	4.75	3.64	135	122	166	84	76	103

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30902
DATE RUN: 12 19 77
CAR: 1974 CHEVROLET IMPALA VIN: 1L69H4Y105643 DRIVER: L J WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	319.1	141.3	433.1
GC PPMC	281.8	119.3	417.9

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	11.2	4.1	8.3	3.97	3.47	2.00	161	92	109	100	57	68
SATURATES	123.7	49.7	234.9	43.88	41.68	56.20	1587	993	2758	986	617	1714
OLEFINS	61.8	27.2	71.6	21.92	22.80	17.13	774	530	821	481	330	510
ACETYLENE	12.5	3.9	7.2	4.43	3.30	1.72	145	71	77	90	44	48
NAPTHENES	6.5	2.4	10.2	2.32	2.04	2.43	82	47	116	51	29	72
AROMATICS	53.4	24.8	68.9	18.94	20.76	16.50	626	454	743	390	282	462
BENZENE	9.2	3.9	9.7	3.27	3.25	2.31	107	70	103	67	44	64
TOLUENE	20.4	8.7	26.6	7.25	7.27	6.38	240	159	287	149	99	178
C8+AROM	23.7	12.2	32.6	8.43	10.24	7.81	284	227	357	177	141	222
UNKNOWN	12.8	7.1	16.8	0.00	0.00	0.00	153	132	184	95	82	115
INDIVIDUAL COMPONENTS												
METHANE	11.2	4.1	8.3	3.97	3.47	2.00	161	92	109	100	57	68
ETHYLENE	17.5	7.8	13.3	6.20	6.55	3.18	219	152	152	136	95	95
ETHANE	2.2	1.0	1.7	0.79	0.83	0.40	30	21	21	19	13	13
ACETYLENE	12.5	3.9	7.2	4.43	3.30	1.72	145	71	77	90	44	48
C3 + C3=	15.9	7.0	12.6	5.66	5.84	3.01	200	136	144	124	84	90
C=C=C	0.4	0.1	0.0	0.14	0.06	0.00	5	1	0	3	1	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.8	0.9	6.2	0.64	0.72	1.49	23	17	74	14	11	46
B1 + IB	9.9	4.6	9.2	3.52	3.65	2.20	124	90	105	77	56	65
NC4 +B=1=3	8.7	4.3	25.6	3.09	3.58	6.13	113	86	304	70	54	189
TBUTENE-2	1.7	0.5	3.2	0.59	0.44	0.77	21	10	37	13	6	23
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.2	0.5	2.8	0.43	0.44	0.67	15	10	32	9	6	20
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.6	0.3	1.0	0.23	0.28	0.25	8	6	12	5	4	7
ISOPENTANE	13.6	6.2	37.6	4.84	5.23	9.01	176	125	444	109	78	276
PENTENE-1	0.6	0.3	1.6	0.23	0.22	0.38	8	5	18	5	3	11
2MBUT-1	1.8	0.8	3.8	0.64	0.66	0.91	22	15	44	14	10	27
NPENTANE	2.8	1.2	6.6	1.00	1.05	1.63	36	25	81	23	16	50
2MB=1=3	0.3	0.3	0.3	0.09	0.28	0.07	3	6	3	2	4	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30902
DATE RUN: 12 19 77
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: L J WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.8	0.9	4.3	0.64	0.72	1.03	22	17	49	14	10	31
CISPENT-2	0.8	0.3	2.3	0.30	0.28	0.55	10	6	26	6	4	16
2MBUT-2	3.6	1.6	7.9	1.29	1.32	1.89	46	31	91	28	19	56
22MBUTANE	0.3	0.1	0.4	0.09	0.11	0.10	3	3	5	2	2	3
CYPENTENE	0.4	0.1	0.9	0.16	0.11	0.22	5	2	10	3	2	6
3MPENTENE	0.3	0.1	0.5	0.11	0.11	0.13	4	3	6	2	2	4
CYPENTANE	0.4	0.1	0.6	0.14	0.11	0.14	5	3	7	3	2	4
23MBUTANE	4.2	1.5	7.5	1.48	1.27	1.79	53	30	88	33	19	55
2MPENTANE	7.8	3.2	13.8	2.77	2.64	3.31	100	63	162	62	39	101
3MPENTANE	4.4	1.7	8.1	1.57	1.43	1.94	57	34	95	35	21	59
HEXENE-1	1.2	0.5	1.8	0.41	0.39	0.43	14	9	21	9	6	13
N HEXANE	2.2	0.9	4.4	0.79	0.72	1.06	29	17	52	18	11	32
TC6=3,=2	2.0	0.9	3.6	0.70	0.72	0.85	25	17	41	15	10	25
CC6=3	0.7	0.3	1.0	0.25	0.28	0.23	9	6	11	5	4	7
2MPENTENE2	1.0	0.3	1.6	0.34	0.28	0.38	12	6	18	7	4	11
MCYP43M2C5	3.3	1.2	5.6	1.18	1.05	1.34	42	24	64	26	15	40
24MPENTANE	5.2	2.0	8.6	1.84	1.65	2.05	66	39	100	41	24	62
BENZENE	9.2	3.9	9.7	3.27	3.25	2.31	107	70	103	67	44	64
CYHEXANE	0.8	0.3	1.0	0.30	0.28	0.25	10	6	12	6	4	7
2MC6+23MC5	12.4	4.7	21.0	4.41	3.91	5.02	159	93	245	99	58	153
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.5	1.2	5.5	1.23	1.05	1.32	44	25	64	27	15	40
224MPENTAN	23.7	9.2	38.2	8.40	7.71	9.14	302	183	446	188	113	277
NHEPTANE	3.1	1.1	4.9	1.09	0.94	1.17	39	22	57	24	14	36
MCYHEXANE	1.4	0.5	2.4	0.50	0.44	0.56	18	10	27	11	6	17
25MHEXANE	3.1	1.2	5.0	1.11	1.05	1.19	40	25	58	25	15	36
24MC6+233M	2.8	1.1	4.4	1.00	0.88	1.06	36	21	51	22	13	32
234MC5	9.4	3.2	16.9	3.34	2.64	4.03	120	63	197	75	39	122
TOLUENE	20.4	8.7	26.6	7.25	7.27	6.38	240	159	287	149	99	178
23MC6+4MC7	2.7	1.1	4.0	0.95	0.94	0.97	34	22	47	21	14	29

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 30902
DATE RUN: 12 19 77
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: L J WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.2	0.9	3.4	0.79	0.77	0.81	29	18	40	18	11	25
3MHEPTANE	2.0	0.8	3.0	0.70	0.66	0.72	25	16	35	16	10	22
255MC6	2.8	1.1	4.1	0.98	0.94	0.98	35	22	48	22	14	30
N OCTANE	0.8	0.4	1.1	0.27	0.33	0.27	10	8	13	6	5	8
223MC6	0.3	0.1	0.6	0.09	0.11	0.14	3	3	7	2	2	4
ETCYHEXANE	0.6	0.2	0.5	0.20	0.17	0.13	7	4	6	4	2	4
ET BENZENE	3.5	1.1	3.1	1.25	0.94	0.75	42	21	34	26	13	21
M+PXYLENE	9.0	4.1	11.3	3.20	3.47	2.76	107	76	123	66	47	76
2+4MC8	1.1	0.4	1.1	0.39	0.33	0.26	14	8	13	9	5	8
O XYLENE	3.3	1.6	4.2	1.16	1.38	1.01	39	30	46	24	19	29
N NONANE	0.6	0.3	0.8	0.23	0.22	0.19	8	5	9	5	3	6
IPRBENZENE	0.6	0.3	0.8	0.20	0.22	0.19	7	5	9	4	3	5
NPRBENZENE	0.4	0.3	0.8	0.16	0.22	0.19	5	5	9	3	3	5
1M3ETBENZ	2.2	1.3	3.6	0.79	1.10	0.87	27	24	40	17	15	25
135MEBENZ	0.8	0.3	1.3	0.27	0.28	0.32	9	6	15	6	4	9
1M2ETBENZ	0.8	0.3	1.3	0.27	0.22	0.30	9	5	14	6	3	9
124MBENZ	2.0	1.8	3.9	0.73	1.49	0.93	24	33	42	15	20	26
SBUBENZENE	0.4	0.2	0.4	0.14	0.17	0.10	5	4	5	3	2	3
N DECANE	0.0	0.0	0.1	0.00	0.00	0.01	0	0	1	0	0	0
123MBENZ	0.3	0.3	0.6	0.09	0.28	0.14	3	6	7	2	4	4
INDANE	0.1	0.1	0.1	0.02	0.06	0.03	1	1	1	0	1	1
13EBENZENE	0.0	0.0	0.1	0.00	0.00	0.01	0	0	1	0	0	0
NBUBENZENE	0.2	0.3	0.5	0.07	0.22	0.13	2	5	6	1	3	4
1M3PRBENZ	0.2	0.3	0.5	0.07	0.22	0.13	2	5	6	1	3	4
UNKNOWNS	12.8	7.1	16.8	4.54	5.95	4.02	153	132	184	95	82	115

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 31101
DATE RUN: 12 15 77
CAR: 1978 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: L J WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	440.2	123.1	503.6
GC PPMC	354.7	114.0	442.9

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	10.7	3.2	20.0	3.01	2.77	4.52	171	63	295	106	39	184
SATURATES	171.7	57.5	226.0	48.41	50.44	51.03	2462	1025	2983	1530	637	1854
OLEFINS	74.6	16.3	86.4	21.04	14.29	19.50	1045	284	1113	650	176	692
ACETYLENE	10.0	2.4	14.7	2.82	2.14	3.33	130	39	176	81	25	110
NAPTHENES	8.4	2.2	10.7	2.38	1.93	2.42	118	38	138	73	24	86
AROMATICS	66.1	29.2	69.5	18.63	25.63	15.69	869	478	841	540	297	523
BENZENE	10.2	2.1	12.2	2.87	1.84	2.75	132	34	146	82	21	91
TOLUENE	25.0	14.5	26.2	7.04	12.69	5.92	328	237	317	204	147	197
C8+AROM	30.9	12.6	31.1	8.72	11.09	7.03	414	210	383	257	131	238
UNKNOWN	13.2	3.2	15.5	0.00	0.00	0.00	177	53	191	110	33	119
INDIVIDUAL COMPONENTS												
METHANE	10.7	3.2	20.0	3.01	2.77	4.52	171	63	295	106	39	184
ETHYLENE	19.1	5.0	16.8	5.39	4.37	4.24	268	87	242	166	54	151
ETHANE	2.5	0.7	2.3	0.71	0.57	0.52	38	12	32	23	8	20
ACETYLENE	10.0	2.4	14.7	2.82	2.14	3.33	130	39	176	81	25	110
C3 + C3=	18.0	4.7	17.5	5.07	4.10	3.95	252	81	225	157	51	140
C=C=C	0.3	0.1	0.3	0.09	0.06	0.07	4	1	4	3	1	2
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	2.8	0.4	5.5	0.78	0.39	1.25	40	8	74	25	5	46
B1 + IB	11.4	2.7	12.4	3.23	2.35	2.80	160	47	160	100	29	99
NC4 +B=1=3	13.9	2.3	24.1	3.92	1.99	5.44	202	41	322	125	25	200
TBUTENE-2	2.3	0.5	3.4	0.64	0.42	0.76	32	8	43	20	5	27
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.8	0.3	2.9	0.50	0.27	0.65	25	5	37	15	3	23
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.9	0.2	1.1	0.25	0.15	0.25	12	3	14	8	2	9
ISOPENTANE	21.1	2.8	37.0	5.96	2.47	8.35	304	50	490	189	31	305
PENTENE-1	0.9	0.1	1.6	0.27	0.09	0.35	13	2	20	8	1	12
2MBUT-1	2.5	0.4	3.9	0.71	0.33	0.89	35	7	51	22	4	31
NPENTANE	4.0	0.6	6.7	1.13	0.51	1.50	56	10	88	36	7	55
2MB=1=3	0.9	0.2	0.8	0.25	0.18	0.18	12	3	10	7	2	6

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 31101
DATE RUN: 12 15 77
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: L J WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	2.6	0.4	4.2	0.74	0.33	0.96	37	7	55	23	4	34
CISPENT-2	1.3	0.1	2.1	0.35	0.12	0.46	18	2	26	11	1	16
2MBUT-2	5.0	0.7	7.5	1.42	0.63	1.69	70	13	96	44	8	60
22MBUTANL	0.7	0.0	0.6	0.19	0.00	0.14	10	0	8	6	0	5
CYPENTENE	0.6	0.1	0.9	0.18	0.06	0.21	9	1	12	5	1	7
3MPENTENE	0.4	0.0	0.6	0.12	0.03	0.14	6	1	8	4	0	5
CYPENTANE	0.5	0.1	1.1	0.14	0.06	0.24	7	1	14	4	1	8
23MBUTANE	5.7	0.6	9.5	1.60	0.51	2.14	81	10	125	50	6	78
2MPENTANL	12.6	2.3	14.7	3.54	2.05	3.33	180	42	195	112	26	121
3MPENTANE	6.0	0.7	8.0	1.68	0.63	1.81	86	13	106	53	8	66
HEXENE-1	1.7	0.3	2.2	0.48	0.27	0.49	24	5	28	15	3	17
N HEXANE	3.0	0.3	4.1	0.85	0.30	0.93	43	6	54	27	4	34
TC6=3,=2	2.7	0.3	3.5	0.76	0.27	0.80	38	5	46	24	3	28
CC6=3	0.9	0.1	1.1	0.25	0.12	0.25	12	2	14	8	1	9
2MPENTENE2	1.3	0.1	1.6	0.35	0.12	0.37	18	2	21	11	1	13
MCYP43M2C5	4.4	0.5	5.7	1.24	0.42	1.29	62	8	74	38	5	46
24MPENTANE	7.0	0.8	8.8	1.97	0.69	1.98	100	14	115	62	9	72
BENZENE	10.2	2.1	12.2	2.87	1.84	2.75	132	34	146	82	21	91
CYHLXANE	0.9	0.1	1.1	0.27	0.09	0.25	13	2	14	8	1	9
2MC6+23MC5	16.0	1.8	19.7	4.50	1.60	4.44	228	32	259	142	20	161
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	4.3	0.5	5.4	1.21	0.42	1.21	61	9	70	38	5	44
224MPENTAN	30.6	19.5	35.3	8.63	17.09	7.97	437	345	463	271	215	288
NHEPTANE	4.0	2.5	4.5	1.12	2.20	1.03	57	45	60	35	28	37
MCYHEXANE	1.8	1.1	1.9	0.50	0.93	0.44	25	19	25	15	12	15
25MHEXANE	5.5	3.3	6.0	1.56	2.89	1.35	79	58	78	49	36	49
24MC6+23JH	2.4	1.4	2.6	0.67	1.24	0.58	34	25	33	21	16	21
234MC5	13.3	8.0	14.4	3.74	6.99	3.26	189	141	189	118	88	118
TOLUENE	25.0	14.5	26.2	7.04	12.69	5.92	328	237	317	204	147	197
23MC6+4MC7	3.5	2.0	3.7	0.99	1.78	0.83	50	36	48	31	22	30

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 31101
DATE RUN: 12 15 77
CAR: 1974 CHEVROLET IMPALA VIN: 1169M4Y105643 DRIVER: L J WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	3.0	1.7	3.1	0.85	1.51	0.70	43	30	41	27	19	25
3MHLPTANE	2.6	1.5	2.7	0.73	1.30	0.60	37	26	35	23	16	22
255MC6	3.6	2.1	3.7	1.03	1.81	0.84	52	36	49	32	23	30
N OCTANE	1.1	0.6	1.1	0.30	0.51	0.24	15	10	14	9	6	9
223MC6	0.3	0.2	0.3	0.09	0.15	0.07	4	3	4	3	2	3
ETCYHLXANE	0.8	0.5	0.9	0.23	0.42	0.20	11	8	11	7	5	7
ET BENZENE	4.3	2.1	3.9	1.21	1.67	0.87	57	35	47	35	22	29
M+PXYLENE	11.6	6.6	12.8	3.28	5.82	2.71	154	109	146	96	68	91
24MC8	1.4	0.8	1.5	0.41	0.72	0.34	21	15	20	13	9	12
O XYLENE	4.3	2.4	4.4	1.21	2.14	1.00	57	40	54	35	25	33
N NONANE	0.8	0.1	0.9	0.23	0.09	0.20	12	2	11	7	1	7
IPRBENZENE	0.7	0.1	0.7	0.19	0.06	0.15	9	1	8	6	1	5
NPRBENZENE	3.1	0.1	0.6	0.89	0.06	0.14	42	1	8	26	1	5
1M3ETBENZ	1.1	0.4	3.1	0.30	0.36	0.70	14	7	38	9	4	24
135MEBENZ	1.1	0.1	1.1	0.32	0.12	0.24	15	2	13	9	1	8
1M2ETBENZ	3.0	0.1	1.1	0.85	0.09	0.24	40	2	13	25	1	8
124MBENZ	0.3	0.4	3.0	0.07	0.36	0.67	3	7	37	2	4	23
SBUBENZENE	0.3	0.1	0.1	0.07	0.06	0.03	3	1	2	2	1	1
N DECANE	0.1	0.0	0.0	0.02	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.4	0.0	0.4	0.11	0.03	0.10	5	1	5	3	0	3
INDANE	0.1	0.0	0.1	0.04	0.00	0.03	2	0	2	1	0	1
13EBENZENE	0.1	0.1	0.0	0.02	0.06	0.00	1	1	0	1	1	0
NBUBENZENE	0.3	0.1	0.3	0.09	0.06	0.07	4	1	4	3	1	2
1M3PRBENZ	0.3	0.0	0.3	0.09	0.00	0.07	4	0	4	3	0	2
UNKNOWNS	13.2	3.2	15.5	3.72	2.80	3.50	177	53	191	110	33	119

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 31102
DATE RUN: 12 16 77
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: L J WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	402.6	139.5	435.9
GC PPMC	380.0	116.3	433.1

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	11.5	5.4	15.3	3.01	4.60	3.54	154	120	197	95	75	122
SATURATES	187.6	45.6	226.9	49.36	39.24	52.38	2253	915	2605	1400	569	1619
OLEFINS	74.3	28.8	80.8	19.55	24.80	18.65	871	565	906	542	351	563
ACETYLENE	11.3	4.1	10.8	2.96	3.51	2.49	123	74	112	76	46	70
NAPTHENES	9.7	1.9	10.8	2.56	1.61	2.49	114	37	121	71	23	75
AROMATICS	70.8	23.8	68.8	18.62	20.48	15.88	780	438	724	485	272	450
BENZENE	10.9	3.9	11.3	2.86	3.34	2.61	118	71	118	74	44	73
TOLUENE	26.8	7.8	26.7	7.05	6.73	6.17	295	144	281	184	89	175
C8+AROM	33.1	12.1	30.7	8.70	10.41	7.10	370	226	329	230	141	205
UNKNOWN	15.0	6.7	19.6	0.00	0.00	0.00	168	125	212	104	78	132
INDIVIDUAL COMPONENTS												
METHANE	11.5	5.4	15.3	3.01	4.60	3.54	154	120	197	95	75	122
ETHYLENE	18.4	8.5	16.6	4.85	7.31	3.83	216	166	186	134	103	116
ETHANE	2.4	1.1	2.0	0.62	0.92	0.46	30	22	24	19	14	15
ACETYLENE	11.3	4.1	10.8	2.96	3.51	2.49	123	74	112	76	46	70
C3 + C3=	17.5	7.8	15.3	4.61	6.67	3.54	206	152	172	128	94	107
C=C=C	0.4	0.1	0.2	0.12	0.12	0.04	5	2	2	3	2	1
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	2.4	0.8	4.7	0.64	0.69	1.09	30	16	55	18	10	34
B1 + IB	11.5	4.8	10.9	3.01	4.09	2.51	134	93	122	84	58	76
NC4 +B=1=3	12.0	4.2	22.1	3.17	3.62	5.11	146	86	257	91	53	160
TBUTENE-2	2.2	0.7	3.0	0.57	0.63	0.70	26	14	34	16	9	21
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.7	0.5	2.6	0.44	0.46	0.60	20	10	29	12	7	18
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.9	0.3	1.1	0.24	0.29	0.24	11	7	12	7	4	7
ISOPENTANE	20.4	5.8	37.8	5.37	4.95	8.54	246	116	427	153	72	265
PENTENE-1	1.0	0.3	1.6	0.27	0.23	0.37	12	5	18	7	3	11
2MBUT-1	2.6	0.8	4.0	0.69	0.69	0.91	31	16	44	19	10	28
NPENTANE	4.0	1.1	6.8	1.06	0.96	1.57	49	23	79	30	14	49
2MB=1=3	0.8	0.4	0.6	0.20	0.35	0.14	9	8	7	5	5	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 31102
DATE RUN: 12 16 77
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: L J WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	2.6	0.8	4.4	0.69	0.69	1.01	31	16	49	19	10	31
CISPENT-2	1.3	0.3	2.2	0.34	0.29	0.51	15	7	25	9	4	16
2MBUT-2	5.0	1.5	8.0	1.31	1.32	1.84	59	30	89	36	19	56
22MBUTANE	0.6	0.3	0.6	0.15	0.23	0.14	7	5	7	4	3	4
CYPENTENE	0.6	0.1	0.9	0.17	0.12	0.21	7	3	10	5	2	6
3MPENTENE	0.5	0.1	0.7	0.13	0.12	0.16	6	3	8	4	2	5
CYPENTANE	0.5	0.1	0.8	0.13	0.12	0.19	6	3	9	4	2	6
23MBUTANE	6.3	1.6	7.6	1.65	1.38	1.76	75	32	87	47	20	54
2MPENTANE	13.2	3.3	15.0	3.47	2.88	3.46	158	67	172	98	42	107
3MPENTANE	6.5	1.8	8.4	1.70	1.55	1.94	78	36	97	48	23	60
HEXENE-1	1.9	0.5	2.0	0.49	0.46	0.47	22	10	23	14	7	14
N HEXANE	3.4	0.7	4.3	0.89	0.63	1.00	41	15	50	25	9	31
TC6=3,=2	3.0	0.7	3.8	0.79	0.63	0.89	35	14	43	22	9	27
CC6=3	1.0	0.2	1.2	0.25	0.17	0.27	11	4	13	7	2	8
2MPENTENE2	1.4	0.2	1.7	0.37	0.17	0.39	17	4	19	10	2	12
MCYP43M2C5	4.9	0.9	5.9	1.30	0.75	1.36	58	17	66	36	11	41
24MPENTANE	7.9	1.7	9.1	2.09	1.50	2.10	95	35	104	59	22	65
BENZENE	10.9	3.9	11.3	2.86	3.34	2.61	118	71	118	74	44	73
CYHEXANE	1.3	0.3	1.1	0.35	0.23	0.26	16	5	12	10	3	8
2MC6+23MC5	19.1	4.1	20.5	5.03	3.51	4.73	229	82	234	142	51	146
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	5.2	1.1	5.6	1.38	0.92	1.29	63	21	64	39	13	40
224MPENTAN	35.6	8.0	36.6	9.38	6.85	8.46	426	159	418	264	99	260
NHEPTANE	4.7	0.9	4.9	1.23	0.81	1.14	56	19	57	35	12	35
MCYHEXANE	2.0	0.5	2.1	0.52	0.40	0.49	23	9	24	14	6	15
25MHEXANE	5.7	1.1	5.7	1.50	0.98	1.31	68	23	65	42	14	40
24MC6+233M	3.4	0.7	3.3	0.89	0.58	0.77	40	13	38	25	8	24
234MC5	16.0	2.7	14.5	4.21	2.36	3.36	191	55	166	119	34	103
TOLUENE	26.8	7.8	26.7	7.05	6.73	6.17	295	144	281	184	89	175
23MC6+4MC7	4.0	0.9	3.9	1.04	0.81	0.90	47	19	44	29	12	28

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 31102
DATE RUN: 12 16 77
CAR: 1974 CHEVROLET IMPALA VIN: 1169H4Y105643 DRIVER: L J WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	3.4	0.8	3.2	0.89	0.69	0.74	40	16	37	25	10	23
3MHEPTANE	3.0	0.7	2.8	0.79	0.58	0.66	36	13	32	22	8	20
255MC6	4.2	1.0	4.0	1.09	0.86	0.91	50	20	45	31	12	28
N OCTANE	1.2	0.3	1.2	0.32	0.29	0.27	15	7	13	9	4	8
223MC6	0.4	0.1	0.5	0.10	0.12	0.11	5	3	6	3	2	4
ETCYHEXANE	1.0	0.1	0.9	0.25	0.12	0.20	11	3	10	7	2	6
ET BENZENE	4.0	1.0	3.6	1.06	0.66	0.84	45	19	39	26	12	24
M+PXYLENE	12.8	3.9	11.8	3.37	3.39	2.73	142	73	125	86	45	78
2+4MC8	1.7	0.4	1.5	0.44	0.35	0.34	20	8	17	12	5	11
O XYLENE	4.8	1.6	4.3	1.26	1.38	1.00	53	30	46	33	18	29
N NONANE	1.0	0.3	0.9	0.25	0.23	0.21	11	5	11	7	3	7
IPRBENZENE	0.8	0.3	0.7	0.22	0.23	0.17	9	5	8	6	3	5
NPRBENZENE	0.7	0.3	0.6	0.19	0.23	0.14	8	5	7	5	3	4
1M3ETBENZ	3.4	1.3	3.0	0.89	1.15	0.70	38	25	32	24	16	20
135MEBENZ	1.2	0.4	1.1	0.30	0.35	0.24	13	7	11	8	5	7
1M2ETBENZ	1.2	0.3	1.1	0.30	0.23	0.24	13	5	11	8	3	7
124MBENZ	3.0	1.9	3.0	0.79	1.67	0.69	34	36	32	21	22	20
SBUBENZENE	0.2	0.1	0.2	0.05	0.12	0.04	2	3	2	1	2	1
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.4	0.3	0.4	0.10	0.29	0.10	4	6	5	3	4	3
INDANE	0.1	0.1	0.1	0.03	0.06	0.03	1	1	1	1	1	1
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.3	0.3	0.4	0.07	0.23	0.09	3	5	4	2	3	2
1M3PRBENZ	0.3	0.3	0.4	0.07	0.23	0.09	3	5	4	2	3	2
UNKNOWNS	15.0	6.7	19.8	3.94	5.75	4.57	168	125	212	104	78	132

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40001
DATE RUN: 02 07 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: HYECK FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 0

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	681.1	16.2	76.6
GC PPMC	610.9	16.8	70.9

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	59.8	4.7	3.5	9.79	27.95	4.92	880	62	48	547	39	30
SATURATES	267.5	6.3	20.5	43.78	37.40	28.95	3523	74	251	2190	46	156
OLEFINS	104.8	0.5	4.1	17.16	3.15	5.74	1349	6	49	838	4	30
ACETYLENE	33.5	0.0	0.4	5.49	0.00	0.50	400	0	4	249	0	2
NAPTHENES	13.0	0.1	0.8	2.14	0.39	1.08	168	1	9	104	0	6
AROMATICS	98.8	3.8	6.2	16.18	22.83	8.81	1194	42	70	742	26	44
BENZENE	17.9	0.1	0.6	2.93	0.79	0.81	213	1	6	133	1	4
TULUENE	27.1	0.3	1.3	4.43	1.57	1.81	327	3	14	203	2	9
C8+AROM	53.9	3.4	4.4	8.82	20.47	6.19	661	38	50	411	24	31
UNKNOWN	33.4	1.4	35.5	0.00	0.00	0.00	411	15	405	256	10	252
INDIVIDUAL COMPONENTS												
METHANE	59.8	4.7	3.5	9.79	27.95	4.92	880	62	48	547	39	30
ETHYLENE	33.0	0.3	1.0	5.41	1.57	1.36	425	3	11	264	2	7
ETHANE	3.8	0.9	0.7	0.62	5.51	0.95	52	11	9	32	7	5
ACETYLENE	33.5	0.0	0.4	5.49	0.00	0.50	400	0	4	249	0	2
C3 + C3=	24.1	0.1	0.7	3.94	0.79	1.04	309	2	9	192	1	5
C=C=C	0.2	0.0	0.0	0.03	0.00	0.00	2	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	3.3	0.2	0.5	0.55	1.18	0.77	45	2	7	28	1	4
B1 + IB	14.4	0.1	0.5	2.36	0.79	0.72	185	2	6	115	1	4
NC4 +B=1=3	21.7	1.1	2.9	3.55	6.30	4.16	289	13	36	180	8	23
TBUTENE-2	3.2	0.0	0.2	0.53	0.00	0.27	41	0	2	26	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	2.7	0.0	0.2	0.45	0.00	0.23	35	0	2	22	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.9	0.0	0.0	0.14	0.00	0.05	11	0	0	7	0	0
ISOPENTANE	40.1	1.3	4.9	7.55	7.87	6.87	611	16	60	380	10	37
PENTENE-1	1.4	0.0	0.1	0.22	0.00	0.09	18	0	1	11	0	0
2MBUT-1	2.7	0.0	0.2	0.45	0.00	0.23	35	0	2	22	0	1
NPENTANE	5.4	0.1	0.5	0.89	0.79	0.72	72	2	6	45	1	4
2MB=1=3	0.2	0.0	0.0	0.04	0.00	0.00	3	0	0	2	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40001
DATE RUN: 02 07 76
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: MYERS FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT-2	3.5	0.0	0.2	0.58	0.00	0.32	45	0	3	28	0	2
CISPENT-2	1.9	0.0	0.1	0.30	0.00	0.14	24	0	1	15	0	1
2MBUT-2	6.7	0.0	0.4	1.09	0.00	0.59	86	0	5	53	0	3
22MBUTANE	0.2	0.5	0.0	0.03	3.15	0.05	2	6	0	2	4	0
CYPENTENE	0.9	0.0	0.0	0.14	0.00	0.05	11	0	0	7	0	0
3MPENTENE	0.7	0.0	0.0	0.11	0.00	0.05	9	0	0	5	0	0
CYPENTANE	0.7	0.0	0.1	0.11	0.00	0.09	9	0	1	5	0	0
23MBUTANE	5.5	0.1	0.5	0.90	0.39	0.77	72	1	7	45	0	4
2MPENTANE	14.0	0.2	1.0	2.29	1.18	1.45	184	2	13	114	1	8
3MPENTANE	7.9	0.1	0.6	1.30	0.39	0.81	104	1	7	65	0	4
HEXENE-1	1.9	0.0	0.1	0.30	0.00	0.14	24	0	1	15	0	1
N HEXANE	3.5	0.1	0.2	0.58	0.39	0.32	46	1	3	29	0	2
TC6=3,=2	3.7	0.0	0.2	0.61	0.00	0.32	48	0	3	30	0	2
CC6=3	1.1	0.0	0.0	0.18	0.00	0.05	14	0	0	9	0	0
2MPENTENE2	1.7	0.0	0.1	0.28	0.00	0.14	22	0	1	14	0	1
MCYP43M2C5	6.5	0.1	0.4	1.06	0.39	0.63	84	1	5	52	0	3
24MPENTANE	10.9	0.1	0.7	1.79	0.79	0.99	144	2	9	89	1	5
BENZENE	17.9	0.1	0.6	2.93	0.79	0.81	213	1	6	133	1	4
CYHEXANE	0.9	0.0	0.0	0.14	0.00	0.05	11	0	0	7	0	0
2MC6+23MC5	30.6	0.3	1.8	5.00	1.97	2.57	401	4	22	249	2	14
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	6.1	0.1	0.4	1.00	0.39	0.50	80	1	4	50	0	3
224MPENTAN	48.8	0.8	2.9	7.99	4.72	4.16	639	9	36	397	6	22
NHEPTANE	4.9	0.0	0.2	0.80	0.00	0.32	64	0	3	40	0	2
MCYHEXANE	3.6	0.0	0.2	0.60	0.00	0.27	47	0	2	29	0	1
25MHEXANE	4.3	0.1	0.2	0.70	0.39	0.27	56	1	2	35	0	1
24MC6+233M	4.0	0.0	0.3	0.66	0.00	0.36	53	0	3	33	0	2
234MC5	17.1	0.1	0.8	2.79	0.79	1.08	224	2	9	139	1	6
TOLUENE	27.1	0.3	1.3	4.43	1.57	1.81	327	3	14	203	2	9
23MC6+4MC7	5.6	0.1	0.3	0.92	0.39	0.41	74	1	4	46	0	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40001
DATE RUN: 02 07 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: HYECK FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	4.8	0.0	0.2	0.79	0.00	0.32	63	0	3	39	0	2
3MHEPTANE	5.0	0.1	0.2	0.82	0.39	0.32	66	1	3	41	0	2
255MC6	5.4	0.1	0.3	0.89	0.39	0.36	71	1	3	44	0	2
N OCTANE	2.0	0.0	0.1	0.32	0.00	0.09	26	0	1	16	0	0
223MC6	0.7	0.0	0.0	0.12	0.00	0.05	10	0	0	6	0	0
ETCYHEXANE	1.4	0.0	0.0	0.22	0.00	0.05	18	0	0	11	0	0
ET BENZENE	5.4	0.0	0.2	0.88	0.00	0.23	65	0	2	41	0	1
M+PXYLENE	18.1	0.3	0.7	2.97	1.57	0.95	221	3	8	137	2	5
2+4MC8	2.8	0.0	0.1	0.47	0.00	0.14	37	0	1	23	0	1
O XYLENE	6.7	0.1	0.3	1.10	0.79	0.41	82	1	3	51	1	2
N NONANE	2.7	0.0	0.1	0.44	0.00	0.18	35	0	2	22	0	1
IPRBENZENE	1.7	0.1	0.1	0.28	0.39	0.14	21	1	1	13	0	1
NPRBENZENE	1.0	0.0	0.0	0.16	0.00	0.05	12	0	0	8	0	0
1M3ETBENZ	6.1	0.5	0.3	1.00	2.76	0.45	75	5	4	47	3	2
135MEBENZ	2.2	0.3	0.1	0.35	1.57	0.18	27	3	1	16	2	1
1M2ETBENZ	2.8	0.2	0.2	0.47	1.18	0.23	35	2	2	22	1	1
124MBENZ	5.8	0.9	0.4	0.95	5.51	0.59	71	10	5	44	6	3
SBUBENZENE	0.6	0.1	0.1	0.10	0.39	0.09	8	1	1	5	0	0
N DECANE	0.2	0.0	0.0	0.03	0.00	0.00	2	0	0	2	0	0
123MBENZ	1.1	0.3	0.1	0.17	1.57	0.09	13	3	1	8	2	0
INDANE	0.3	0.1	0.0	0.05	0.39	0.05	4	1	0	2	0	0
13ERBENZENE	0.0	0.0	0.1	0.00	0.00	0.14	0	0	1	0	0	1
NBUBENZENE	1.0	0.3	0.1	0.16	1.97	0.18	12	4	1	8	2	1
1M3PRBENZ	1.0	0.4	1.7	0.16	2.36	2.44	12	4	20	8	3	12
UNKNOWNS	33.4	1.4	35.5	5.47	8.27	50.00	411	15	405	256	10	252

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40002
DATE RUN: 02 08 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: L J WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 0

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	231.4	19.2	73.6
GC PPMC	648.3	23.2	63.9

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	75.4	7.5	9.1	11.63	32.33	14.24	1265	39	124	786	24	77
SATURATES	295.7	7.5	35.6	45.62	32.33	55.71	4442	35	434	2760	22	269
OLEFINS	110.3	0.7	7.1	17.02	3.02	11.11	1618	3	84	1006	2	52
ACETYLENE	35.9	1.2	1.2	5.54	5.17	1.88	489	5	13	304	3	8
NAPTHENES	9.1	0.2	1.3	1.40	0.86	2.03	133	1	15	83	1	10
AROMATICS	86.9	3.8	6.5	13.41	16.38	10.17	1197	16	73	744	10	45
BENZENE	15.6	0.2	0.9	2.41	0.86	1.41	213	1	10	132	1	6
TOLUENE	24.7	0.3	2.0	3.81	1.29	3.13	341	1	22	212	1	14
C8+AROM	46.5	3.3	3.6	7.18	14.22	5.63	651	14	41	405	9	25
UNKNOWN	34.9	2.3	3.1	0.00	0.00	0.00	490	10	35	305	6	22
INDIVIDUAL COMPONENTS												
METHANE	75.4	7.5	9.1	11.63	32.33	14.24	1265	39	124	786	24	77
ETHYLENE	44.8	0.5	2.2	6.91	2.16	3.44	657	2	26	409	1	16
ETHANE	5.8	0.3	1.9	0.89	1.29	2.97	90	1	24	56	1	15
ACETYLENE	35.9	1.2	1.2	5.54	5.17	1.88	489	5	13	304	3	8
C3 + C3=	19.7	0.1	1.1	3.04	0.43	1.72	289	0	13	179	0	8
C=C=C	0.5	0.0	0.0	0.08	0.00	0.00	7	0	0	4	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	4.4	0.2	1.0	0.69	0.86	1.56	67	1	12	42	1	8
B1 + IB	11.3	0.1	0.8	1.74	0.43	1.25	166	0	10	103	0	6
NC4 +B=1=3	22.3	1.0	5.2	3.44	4.31	8.14	339	5	64	211	3	40
TBUTENE-2	2.9	0.0	0.3	0.45	0.00	0.47	43	0	4	27	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	2.5	0.0	0.2	0.39	0.00	0.31	37	0	2	23	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.8	0.0	0.1	0.12	0.00	0.16	12	0	1	7	0	1
ISOPENTANE	48.5	1.2	8.4	7.49	5.17	13.15	733	6	103	455	4	64
PENTENE-1	1.4	0.0	0.1	0.22	0.00	0.16	21	0	1	13	0	1
2MBUT-1	2.9	0.0	0.2	0.45	0.00	0.31	43	0	2	27	0	1
NPENTANE	5.9	0.2	0.9	0.90	0.86	1.41	88	1	11	55	1	7
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40002
DATE RUN: 02 08 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVEN: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT-2	3.7	0.0	0.3	0.58	0.00	0.47	55	0	4	34	0	2
CISPENT-2	1.9	0.0	0.1	0.30	0.00	0.16	28	0	1	17	0	1
2MBUT-2	7.0	0.0	0.7	1.07	0.00	1.10	102	0	6	63	0	5
22MBUTANE	2.2	1.8	0.1	0.34	7.76	0.16	33	8	1	21	5	1
CYPENTENE	0.8	0.0	0.1	0.12	0.00	0.16	12	0	1	7	0	1
3MPENTENE	0.7	0.0	0.1	0.11	0.00	0.16	10	0	1	6	0	1
CYPENTANE	0.7	0.1	0.1	0.11	0.43	0.16	10	0	1	6	0	1
23MBUTANE	6.4	0.1	0.7	0.98	0.43	1.10	96	0	9	59	0	5
2MPENTANE	16.0	0.2	1.8	2.48	0.86	2.82	241	1	22	150	1	14
3MPENTANE	8.5	0.1	0.9	1.31	0.43	1.41	127	0	11	79	0	7
HEXENE-1	2.1	0.0	0.1	0.33	0.00	0.16	31	0	1	19	0	1
N HEXANE	3.8	0.1	0.4	0.59	0.43	0.63	58	0	5	36	0	3
TC6=3,=2	4.0	0.0	0.4	0.62	0.00	0.63	59	0	5	37	0	3
CC6=3	1.0	0.0	0.1	0.16	0.00	0.16	15	0	1	9	0	1
2MPENTENE 2	2.1	0.0	0.2	0.33	0.00	0.31	31	0	2	19	0	1
MCYP43M2C5	1.0	0.1	0.7	0.16	0.43	1.10	15	0	8	9	0	5
24MPENTANE	12.1	0.1	1.2	1.87	0.43	1.88	181	0	15	113	0	9
BENZENE	15.6	0.2	0.9	2.41	0.86	1.41	213	1	10	132	1	6
CYHEXANE	1.7	0.0	0.1	0.26	0.00	0.16	25	0	1	16	0	1
2MC6+23MC5	34.5	0.4	3.0	5.32	1.72	4.69	517	2	36	321	1	23
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	6.9	0.1	0.6	1.06	0.43	0.94	103	0	7	64	0	5
224MPENTAN	53.4	0.8	4.9	8.24	3.45	7.67	797	4	59	496	2	37
NHEPTANE	5.6	0.0	0.4	0.86	0.00	0.63	83	0	5	52	0	3
MCYHEXANE	3.9	0.0	0.3	0.61	0.00	0.47	58	0	4	36	0	2
25MHEXANE	4.4	0.1	0.3	0.69	0.43	0.47	66	0	4	41	0	2
24MC6+233M	4.1	0.0	0.4	0.64	0.00	0.63	62	0	5	38	0	3
234MC5	20.8	0.2	1.3	3.21	0.86	2.03	310	1	16	193	1	10
TOLUENE	24.7	0.3	2.0	3.81	1.29	3.13	341	1	22	212	1	14
23MC6+4MC7	6.0	0.1	0.5	0.92	0.43	0.78	89	0	6	55	0	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40002
DATE RUN: 02 08 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
2MHEXANE	5.0	0.0	0.4	0.78	0.00	0.63	75	0	5	47	0	3
3MHEPTANE	5.2	0.1	0.4	0.81	0.43	0.63	78	0	5	49	0	3
255MC6	5.6	0.1	0.4	0.86	0.43	0.63	83	0	5	51	0	3
N OCTANE	1.9	0.1	0.1	0.30	0.43	0.16	29	0	1	18	0	1
223MC6	0.8	0.0	0.1	0.12	0.00	0.16	12	0	1	7	0	1
ETCYHEXANE	1.7	0.0	0.1	0.26	0.00	0.16	25	0	1	16	0	1
ET BENZENE	5.3	0.1	0.2	0.83	0.43	0.31	74	0	2	46	0	1
M+PXYLENE	15.7	0.3	1.1	2.43	1.29	1.72	219	1	12	136	1	8
244MC8	2.8	0.1	0.2	0.44	0.43	0.31	42	0	2	26	0	2
O XYLENE	5.9	0.1	0.4	0.90	0.43	0.63	81	0	5	50	0	3
N NONANE	2.5	0.1	0.1	0.39	0.43	0.16	38	0	1	23	0	1
IPRBENZENE	1.7	0.1	0.1	0.26	0.43	0.16	24	0	1	15	0	1
NPRBENZENE	0.7	0.1	0.1	0.11	0.43	0.16	10	0	1	6	0	1
1M3ETBENZ	4.8	0.4	0.2	0.75	1.72	0.31	68	2	2	42	1	1
135MEBENZ	1.7	0.1	0.1	0.26	0.43	0.16	24	0	1	15	0	1
1M2ETBENZ	2.4	0.1	0.1	0.37	0.43	0.16	34	0	1	21	0	1
124MBENZ	4.7	0.8	0.5	0.73	3.45	0.78	66	3	6	41	2	4
SBUBENZENE	0.6	0.1	0.1	0.09	0.43	0.16	9	0	1	5	0	1
N DECANE	0.2	0.0	0.0	0.03	0.00	0.00	3	0	0	2	0	0
123MBENZ	0.8	0.2	0.1	0.12	0.86	0.16	11	1	1	7	1	1
INDANE	0.3	0.1	0.1	0.05	0.43	0.16	4	0	1	3	0	1
13EBENZENE	0.1	0.1	0.1	0.02	0.43	0.16	1	0	1	1	0	1
NBUBENZENE	0.8	0.3	0.2	0.12	1.29	0.31	11	1	2	7	1	1
1M3PRBENZ	0.8	0.4	0.2	0.12	1.72	0.31	11	2	2	7	1	1
UNKNOWNS	34.9	2.3	3.1	5.39	9.91	4.85	490	10	35	305	6	22

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40201
DATE RUN: 02 04 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: L J WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 20

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	295.5	14.2	41.8
GC PPMC	241.1	17.3	33.8

COMPOUND NAME	PPMC BAG	PPMC 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG	% OF TOTAL CARBON 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG	MG/MILE 1	MG/MILE 2	MG/MILE 3	MG/KM BAG	MG/KM 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS																
METHANE	27.6	4.6	5.0		11.46	26.56	14.81		456	41	74		283	26	46	
SATURATES	105.2	9.0	19.1		43.63	51.87	56.54		1555	72	252		966	45	157	
OLEFINS	44.2	0.4	3.4		18.33	2.49	10.19		638	3	44		396	2	28	
ACETYLENE	10.9	0.0	0.3		4.51	0.00	0.96		146	0	4		91	0	2	
NAPTHENES	5.1	0.1	0.6		2.12	0.41	1.73		74	1	8		46	0	5	
AROMATICS	38.8	2.3	4.2		16.10	16.28	12.50		526	17	51		327	11	32	
BENZENE	8.0	0.1	0.6		3.30	0.83	1.73		107	1	7		66	1	4	
TOLUENE	11.2	0.3	1.2		4.64	1.66	3.65		152	2	15		94	1	9	
C8+AROM	19.7	1.9	2.4		8.15	10.79	7.12		271	14	30		168	9	18	
UNKNOWN	9.3	0.9	1.1		0.00	0.00	0.00		128	7	14		80	4	8	
INDIVIDUAL COMPONENTS																
METHANE	27.6	4.6	5.0		11.46	26.56	14.81		456	41	74		283	26	46	
ETHYLENE	15.8	0.2	1.0		6.55	1.24	3.08		228	2	13		142	1	8	
ETHANE	2.4	0.6	0.8		1.00	3.32	2.50		37	5	12		23	3	7	
ACETYLENE	10.9	0.0	0.3		4.51	0.00	0.96		146	0	4		91	0	2	
C3 + C3=	9.5	0.1	0.8		3.96	0.83	2.31		138	1	10		86	1	6	
C=C=C	0.1	0.0	0.0		0.05	0.00	0.00		2	0	0		1	0	0	
METHACETYL	0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0	
ISOBUTANE	1.4	0.2	0.6		0.58	1.24	1.73		21	2	8		13	1	5	
B1 + IB	6.1	0.1	0.5		2.52	0.41	1.35		88	1	6		54	0	4	
NC4 +B=1=3	8.5	1.1	2.9		3.54	6.22	8.46		128	9	38		79	5	24	
TBUTENE-2	1.3	0.0	0.1		0.55	0.00	0.19		19	0	1		12	0	1	
22MPRUPANE	0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0	
CBUTENE-2	1.1	0.0	0.1		0.45	0.00	0.38		16	0	2		10	0	1	
B=1=2	0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0	
3MB1	0.3	0.0	0.0		0.13	0.00	0.00		5	0	0		3	0	0	
ISOPENTANE	17.8	1.3	4.6		7.37	7.47	13.46		264	10	60		164	7	37	
PENTENE-1	0.4	0.0	0.1		0.18	0.00	0.19		6	0	1		4	0	1	
2MBUT-1	0.9	0.0	0.1		0.39	0.00	0.19		14	0	1		9	0	1	
NPENTANE	2.1	0.1	0.5		0.87	0.83	1.54		31	1	7		19	1	4	
2MB=1=3	0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0	

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40201
DATE RUN: 02 04 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	1.2	0.0	0.1	0.50	0.00	0.38	17	0	2	11	0	1
CISPENT-2	0.6	0.0	0.1	0.26	0.00	0.19	9	0	1	6	0	1
2MBUT-2	2.8	0.0	0.3	1.15	0.00	0.96	40	0	4	25	0	3
22MBUTANE	1.6	3.7	0.1	0.66	21.16	0.38	23	30	2	15	18	1
CYPENTENE	0.3	0.0	0.0	0.13	0.00	0.00	4	0	0	3	0	0
3MPENTENE	0.3	0.0	0.1	0.10	0.00	0.19	4	0	1	2	0	1
CYPENTANE	0.3	0.0	0.0	0.10	0.00	0.00	4	0	0	2	0	0
23MBUTANE	2.1	0.1	0.3	0.89	0.41	0.96	32	1	4	20	0	3
2MPENTANE	6.4	0.2	1.0	2.67	1.24	2.88	95	2	13	59	1	8
3MPENTANE	3.1	0.1	0.5	1.28	0.83	1.54	46	1	7	28	1	4
HEXENE-1	0.6	0.0	0.0	0.26	0.00	0.00	9	0	0	6	0	0
N HEXANE	1.3	0.1	0.2	0.55	0.41	0.58	20	1	3	12	0	2
TC6=3,=2	1.6	0.0	0.2	0.66	0.00	0.58	23	0	3	14	0	2
CC6=3	0.4	0.0	0.0	0.16	0.00	0.00	5	0	0	3	0	0
2MPENTENE2	0.8	0.0	0.1	0.31	0.00	0.19	11	0	1	7	0	1
MCYP43M2C5	2.6	0.1	0.4	1.07	0.41	1.15	37	1	5	23	0	3
24MPENTANE	4.2	0.1	0.7	1.76	0.83	1.92	62	1	9	39	1	5
BENZENE	8.0	0.1	0.6	3.30	0.83	1.73	107	1	7	66	1	4
CYHEXANE	0.6	0.0	0.1	0.24	0.00	0.19	8	0	1	5	0	1
2MC6+23MC5	11.6	0.3	1.6	4.82	1.66	4.81	171	2	21	106	1	13
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.3	0.1	0.3	0.94	0.41	0.96	34	1	4	21	0	3
224MPENTAN	19.1	0.7	2.8	7.92	4.15	8.27	281	6	37	174	4	23
NHEPTANE	1.9	0.0	0.1	0.79	0.00	0.38	28	0	2	17	0	1
MCYHEXANE	1.4	0.0	0.1	0.56	0.00	0.38	20	0	2	12	0	1
25MHEXANE	1.6	0.1	0.2	0.68	0.41	0.58	24	1	3	15	0	2
24MC6+233M	1.7	0.0	0.3	0.71	0.00	0.77	25	0	3	16	0	2
234MC5	5.9	0.1	0.7	2.44	0.83	2.12	86	1	9	54	1	6
TOLUENE	11.2	0.3	1.2	4.64	1.66	3.65	152	2	15	94	1	9
23MC6+4MC7	2.1	0.0	0.2	0.89	0.00	0.58	32	0	3	20	0	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40201
DATE RUN: 02 04 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	1.7	0.0	0.2	0.71	0.00	0.58						
3MHEPTANE	1.7	0.1	0.1	0.71	0.41	0.38	25	0	3	16	0	2
255MC6	1.8	0.0	0.2	0.76	0.00	0.58	25	1	2	16	0	1
N OCTANE	0.6	0.0	0.1	0.24	0.00	0.19	27	0	3	17	0	2
223MC6	0.3	0.0	0.0	0.10	0.00	0.00	8	0	1	5	0	1
							4	0	0	2	0	0
ETCYHEXANE	0.3	0.0	0.0	0.13	0.00	0.00						
ET BENZENE	1.6	0.0	0.1	0.68	0.00	0.38	5	0	0	3	0	0
M+PXYLENE	6.7	0.2	0.7	2.78	1.24	2.12	22	0	2	14	0	1
2+4MC8	0.9	0.0	0.1	0.37	0.00	0.19	92	2	9	57	1	5
O XYLENE	2.6	0.1	0.3	1.05	0.41	0.77	13	0	1	8	0	1
							35	1	3	21	0	2
N NONANE	0.9	0.0	0.1	0.37	0.00	0.19						
IPRBENZENE	0.6	0.0	0.1	0.24	0.00	0.19	13	0	1	8	0	1
NPRBENZENE	0.3	0.0	0.0	0.10	0.00	0.00	8	0	1	5	0	0
1M3ETBENZ	2.3	0.3	0.3	0.94	1.66	0.77	3	0	0	2	0	0
135MEBENZ	0.8	0.1	0.1	0.34	0.83	0.38	31	2	3	19	1	2
							11	1	2	7	1	1
1M2ETBENZ	1.1	0.1	0.1	0.45	0.41	0.38						
124MBENZ	2.2	0.5	0.4	0.92	2.90	1.15	15	1	2	9	0	1
SBUBENZENE	0.3	0.1	0.1	0.10	0.41	0.19	30	4	5	19	2	3
N DECANE	0.1	0.0	0.0	0.03	0.00	0.00	3	1	1	2	0	0
123MBENZ	0.4	0.1	0.1	0.16	0.83	0.19	1	0	0	1	0	0
							5	1	1	3	1	0
INDANE	0.1	0.0	0.0	0.05	0.00	0.00						
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	2	0	0	1	0	0
NBUBENZENE	0.4	0.1	0.1	0.16	0.83	0.19	0	0	0	0	0	0
1M3PRBENZ	0.4	0.2	0.1	0.18	1.24	0.38	5	1	1	3	1	0
UNKNOWNS	9.3	0.9	1.1	3.85	5.39	3.27	6	2	2	4	1	1
							128	7	14	80	4	8

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40202
DATE RUN: 02 09 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: L J WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 20

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	324.5	14.3	38.4
GC PPMC	314.1	12.5	28.8

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
MAJOR COMPONENTS												
METHANE	52.0	6.2	8.4	16.56	49.60	29.17	713	75	124	443	47	77
SATURATES	118.0	4.6	12.9	37.57	36.80	44.79	1449	50	171	900	31	106
OLEFINS	60.3	0.5	3.3	19.20	4.00	11.46	723	5	43	449	3	27
ACETYLENE	20.1	0.0	0.6	6.40	0.00	2.08	224	0	7	139	0	4
NAPTHENES	5.7	0.0	0.4	1.81	0.00	1.39	68	0	5	42	0	3
AROMATICS	44.6	0.6	2.0	14.20	4.80	6.94	502	6	24	312	4	15
BENZENE	8.7	0.0	0.4	2.77	0.00	1.39	97	0	5	60	0	3
TOLUENE	12.4	0.1	0.7	3.95	0.80	2.43	140	1	9	87	1	5
C8+AROM	23.5	0.5	0.9	7.48	4.00	3.13	269	5	11	167	3	7
UNKNOWN	13.4	0.6	1.2	0.00	0.00	0.00	154	6	15	96	4	9
INDIVIDUAL COMPONENTS												
METHANE	52.0	6.2	8.4	16.56	49.60	29.17	713	75	124	443	47	77
ETHYLENE	26.9	0.3	1.5	8.56	2.40	5.21	323	3	19	200	2	12
ETHANE	4.1	1.0	1.6	1.31	8.00	5.56	53	11	22	33	7	14
ACETYLENE	20.1	0.0	0.6	6.40	0.00	2.08	224	0	7	139	0	4
C3 + C3=	10.5	0.1	0.8	3.34	0.80	2.78	126	1	10	78	1	6
C=C=C	0.3	0.0	0.0	0.10	0.00	0.00	3	0	0	2	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	2.0	0.2	0.4	0.64	1.60	1.39	25	2	5	15	1	3
B1 + IB	7.0	0.1	0.4	2.23	0.80	1.39	84	1	5	52	1	3
NC4 +B=1=3	10.0	0.7	2.0	3.18	5.60	6.94	124	8	27	77	5	17
TBUTENE-2	1.4	0.0	0.1	0.45	0.00	0.35	17	0	1	10	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.2	0.0	0.1	0.38	0.00	0.35	14	0	1	9	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.4	0.0	0.0	0.13	0.00	0.00	5	0	0	3	0	0
ISOPENTANE	21.3	0.8	2.9	6.78	6.40	10.07	263	9	39	163	5	24
PENTENE-1	0.6	0.0	0.0	0.19	0.00	0.00	7	0	0	4	0	0
2MBUT-1	1.3	0.0	0.1	0.41	0.00	0.35	16	0	1	10	0	1
NPENTANE	2.5	0.1	0.3	0.80	0.80	1.04	31	1	4	19	1	2
2MB=1=3	0.1	0.0	0.0	0.03	0.00	0.00	1	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40202
DATE RUN: 02 09 76
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.8	0.0	0.1	0.57	0.00	0.35	22	0	1	13	0	1
CISPENT-2	0.9	0.0	0.0	0.29	0.00	0.00	11	0	0	7	0	0
2MBUT-2	3.5	0.0	0.2	1.11	0.00	0.69	42	0	3	26	0	2
22MBUTANE	0.2	0.6	0.0	0.06	4.80	0.00	2	7	0	2	4	0
CYPENTENE	0.6	0.0	0.0	0.19	0.00	0.00	7	0	0	4	0	0
3MPENTENE	0.4	0.0	0.0	0.13	0.00	0.00	5	0	0	3	0	0
CYPENTANE	0.2	0.0	0.0	0.06	0.00	0.00	2	0	0	1	0	0
23MBUTANE	2.9	0.2	0.2	0.92	1.60	0.69	36	2	3	22	1	2
2MPENTANE	6.3	0.1	0.6	2.01	0.80	2.08	77	1	8	48	1	5
3MPENTANE	3.6	0.1	0.3	1.15	0.80	1.04	44	1	4	27	1	2
HEXENE-1	0.8	0.0	0.0	0.25	0.00	0.00	10	0	0	6	0	0
N HEXANE	1.6	0.0	0.1	0.51	0.00	0.35	20	0	1	12	0	1
TC6=3,=2	1.9	0.0	0.0	0.60	0.00	0.00	23	0	0	14	0	0
CC6=3	0.5	0.0	0.0	0.16	0.00	0.00	6	0	0	4	0	0
2MPENTENE2	0.2	0.0	0.0	0.06	0.00	0.00	2	0	0	1	0	0
MCYP43M2C5	2.9	0.0	0.2	0.92	0.00	0.69	35	0	3	22	0	2
24MPENTANE	4.7	0.1	0.4	1.50	0.80	1.39	58	1	5	36	1	3
BENZENE	8.7	0.0	0.4	2.77	0.00	1.39	97	0	5	60	0	3
CYHEXANE	0.6	0.0	0.0	0.19	0.00	0.00	7	0	0	4	0	0
2MC6+23MC5	12.7	0.2	1.0	4.04	1.60	3.47	155	2	13	97	1	8
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.5	0.0	0.2	0.80	0.00	0.69	31	0	3	19	0	2
224MPENTAN	20.7	0.4	1.7	6.59	3.20	5.90	253	4	22	157	3	14
NHEPTANE	2.1	0.0	0.1	0.67	0.00	0.35	26	0	1	16	0	1
MCYHEXANE	1.5	0.0	0.1	0.48	0.00	0.35	18	0	1	11	0	1
25MHEXANE	1.8	0.0	0.1	0.57	0.00	0.35	22	0	1	14	0	1
24MC6+233M	1.7	0.0	0.1	0.54	0.00	0.35	21	0	1	13	0	1
234MC5	6.7	0.1	0.4	2.13	0.80	1.39	82	1	5	51	1	3
TOLUENE	12.4	0.1	0.7	3.95	0.80	2.43	140	1	9	87	1	5
23MC6+4MC7	2.2	0.0	0.1	0.70	0.00	0.35	27	0	1	17	0	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40202
DATE RUN: 02 09 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVEN: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	1.8	0.0	0.1	0.57	0.00	0.35	22	0	1	14	0	1
3MHEPTANE	1.7	0.0	0.1	0.54	0.00	0.35	21	0	1	13	0	1
255MC6	1.9	0.0	0.1	0.60	0.00	0.35	23	0	1	14	0	1
N OCTANE	0.6	0.0	0.0	0.19	0.00	0.00	7	0	0	5	0	0
223MC6	0.2	0.0	0.0	0.06	0.00	0.00	2	0	0	2	0	0
ETCYHEXANE	0.5	0.0	0.1	0.16	0.00	0.35	6	0	1	4	0	1
ET BENZENE	2.4	0.0	0.0	0.76	0.00	0.00	27	0	0	17	0	0
M+PXYLENE	8.3	0.1	0.4	2.64	0.80	1.39	94	1	5	59	1	3
2+4MC8	1.1	0.0	0.1	0.35	0.00	0.35	13	0	1	8	0	1
O XYLENE	3.0	0.0	0.1	0.96	0.00	0.35	34	0	1	21	0	1
N NONANE	1.0	0.0	0.0	0.32	0.00	0.00	12	0	0	8	0	0
IPRBENZENE	0.6	0.0	0.0	0.19	0.00	0.00	7	0	0	4	0	0
NPRBENZENE	0.4	0.0	0.0	0.13	0.00	0.00	5	0	0	3	0	0
1M3ETBENZ	2.7	0.0	0.1	0.86	0.00	0.35	31	0	1	19	0	1
135MEBENZ	0.9	0.0	0.0	0.29	0.00	0.00	10	0	0	6	0	0
1M2ETBENZ	1.1	0.0	0.0	0.35	0.00	0.00	13	0	0	8	0	0
124MBENZ	2.9	0.2	0.2	0.92	1.60	0.69	33	2	2	21	1	2
SBUBENZENE	0.3	0.0	0.0	0.10	0.00	0.00	3	0	0	2	0	0
N DECANE	0.1	0.0	0.0	0.03	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.6	0.0	0.0	0.19	0.00	0.00	7	0	0	4	0	0
INDANE	0.1	0.0	0.0	0.03	0.00	0.00	1	0	0	1	0	0
1JEBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.1	0.0	0.03	0.80	0.00	1	1	0	1	1	0
1M3PRBENZ	0.1	0.1	0.1	0.03	0.80	0.35	1	1	1	1	1	1
UNKNOWNS	13.4	0.6	1.2	4.27	4.80	4.17	154	6	15	96	4	9

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO=: 40401
DATE RUN: 02 03 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVEN: SWARTZLANDER FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 40

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	173.5	11.0	40.0
GC PPMC	128.4	11.2	36.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	19.1	3.1	0.0	14.84	27.80	0.00	333	30	0	207	19	0
SATURATES	49.4	5.3	24.1	38.44	47.15	66.46	773	46	276	480	29	172
OLEFINS	24.2	0.4	4.5	18.88	3.89	12.37	371	4	50	230	2	31
ACETYLENE	5.0	0.0	0.5	3.87	0.00	1.47	70	0	6	44	0	3
NAPTHENES	2.5	0.1	0.8	1.98	1.11	2.31	39	1	9	24	1	6
AROMATICS	22.5	1.7	5.0	17.54	15.04	13.84	323	13	53	201	8	33
BENZENE	4.9	0.1	0.8	3.82	0.56	2.18	70	0	8	43	0	5
TOLUENE	6.3	0.1	1.5	4.90	1.11	4.19	90	1	16	56	1	10
C8+AROM	11.3	1.5	2.7	8.81	13.38	7.55	165	12	29	103	8	18
UNKNOWN	5.7	0.6	1.3	0.00	0.00	0.00	84	5	14	52	3	9
INDIVIDUAL COMPONENTS												
METHANE	19.1	3.1	0.0	14.84	27.80	0.00	333	30	0	207	19	0
ETHYLENE	7.4	0.2	1.3	5.76	1.67	3.56	113	2	14	70	1	9
ETHANE	1.1	0.4	1.1	0.85	3.89	2.94	18	4	13	11	2	8
ACETYLENE	5.0	0.0	0.5	3.87	0.00	1.47	70	0	6	44	0	3
C3 + C3=	6.5	0.1	1.0	5.08	1.11	2.73	100	1	11	62	1	7
C=C=C	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.8	0.2	0.8	0.58	1.67	2.31	12	2	10	7	1	6
B1 + 1B	3.9	0.1	0.7	3.06	0.56	1.89	60	1	8	37	0	5
NC4 +B=1=3	4.8	0.8	3.8	3.73	7.23	10.48	76	7	44	47	4	27
TBUTENE-2	0.7	0.0	0.2	0.54	0.00	0.42	11	0	2	7	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.5	0.0	0.2	0.40	0.00	0.42	8	0	2	5	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.0	0.13	0.00	0.00	3	0	0	2	0	0
ISOPENTANE	8.9	1.0	5.6	6.92	8.90	15.51	140	9	65	87	5	40
PENTENE-1	0.2	0.0	0.1	0.13	0.00	0.21	3	0	1	2	0	1
2MBUT-1	0.5	0.0	0.1	0.36	0.00	0.21	7	0	1	4	0	1
NPENTANE	1.0	0.1	0.6	0.81	1.11	1.68	16	1	7	10	1	4
2MB=1=3	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40401
DATE RUN: 02 03 76
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: SWARTZLANDER FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
TPENT-2	0.6	0.0	0.2	0.45	0.00	0.42	9	0	2	5	0	1
CISPENT-2	0.3	0.0	0.1	0.22	0.00	0.21	4	0	1	3	0	1
2MBUT-2	1.3	0.0	0.5	1.03	0.00	1.26	20	0	5	13	0	3
22MBUTANE	0.1	1.4	0.5	0.04	12.23	1.26	1	12	5	1	7	3
CYPENTENE	0.1	0.0	0.0	0.09	0.00	0.00	2	0	0	1	0	0
3MPENTENE	0.1	0.1	0.1	0.09	0.56	0.21	2	1	1	1	0	1
CYPENTANE	0.1	0.1	0.0	0.09	0.56	0.00	2	1	0	1	0	0
23MBUTANE	0.8	0.1	0.3	0.63	0.56	0.84	13	1	3	8	0	2
2MPENTANE	2.5	0.1	1.1	1.98	1.11	3.14	40	1	13	25	1	8
3MPENTANE	1.3	0.1	0.6	1.03	0.56	1.68	21	1	7	13	0	4
HEXENE-1	0.3	0.0	0.0	0.22	0.00	0.00	4	0	0	3	0	0
N HEXANE	0.4	0.1	0.2	0.31	0.56	0.63	6	1	3	4	0	2
TC6=3,=2	0.9	0.0	0.2	0.72	0.00	0.63	14	0	3	9	0	2
CC6=3	0.3	0.0	0.0	0.27	0.00	0.00	5	0	0	3	0	0
2MPENTENE2	0.3	0.0	0.1	0.22	0.00	0.21	4	0	1	3	0	1
MCYP43M2C5	1.2	0.1	0.5	0.94	0.56	1.26	19	1	5	12	0	3
24MPENTANE	2.0	0.1	0.8	1.53	0.56	2.10	31	1	9	19	0	5
BENZENE	4.9	0.1	0.8	3.82	0.56	2.10	70	0	8	43	0	5
CYHEXANE	0.3	0.0	0.1	0.27	0.00	0.21	5	0	1	3	0	1
2MC6+23MC5	5.5	0.2	2.0	4.32	1.67	5.45	86	2	23	54	1	14
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.0	0.1	0.4	0.81	0.56	1.05	16	1	4	10	0	3
224MPENTAN	9.3	0.5	3.5	7.24	4.45	9.64	145	4	40	90	3	25
NHEPTANE	0.8	0.0	0.2	0.63	0.00	0.42	13	0	2	8	0	1
MCYHEXANE	0.7	0.0	0.2	0.54	0.00	0.63	11	0	3	7	0	2
25MHEXANE	0.7	0.1	0.2	0.54	0.56	0.63	11	1	3	7	0	2
24MC6+233M	0.9	0.0	0.3	0.67	0.00	0.84	13	0	3	8	0	2
234MC5	2.7	0.1	0.8	2.11	0.56	2.31	42	1	10	26	0	6
TOLUENE	6.3	0.1	1.5	4.90	1.11	4.19	98	1	16	56	1	10
23MC6+4MC7	1.0	0.0	0.2	0.76	0.00	0.63	15	0	3	9	0	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40401
DATE RUN: 02 03 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVEN: SWANTZLANDER FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	0.8	0.0	0.2	0.63	0.00	0.63	13	0	3	8	0	2
3MHEPTANE	0.8	0.0	0.2	0.63	0.00	0.63	13	0	3	8	0	2
255MC6	0.9	0.0	0.2	0.67	0.00	0.63	13	0	3	8	0	2
N OCTANE	0.3	0.0	0.1	0.22	0.00	0.21	4	0	1	3	0	1
223MC6	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.2	0.0	0.1	0.13	0.00	0.21	3	0	1	2	0	1
ET BENZENE	0.9	0.1	0.2	0.72	0.67	0.63	13	1	2	8	0	2
M+PXYLENE	3.8	0.4	0.9	2.97	3.68	2.52	55	3	10	34	2	6
2+4MC8	0.5	0.1	0.2	0.36	0.67	0.42	7	1	2	4	0	1
O XYLENE	1.4	0.2	0.3	1.12	1.67	0.84	21	2	3	13	1	2
N NONANE	0.4	0.0	0.2	0.31	0.33	0.42	6	0	2	4	0	1
IPRBENZENE	0.3	0.0	0.1	0.22	0.33	0.21	4	0	1	3	0	1
NPRBENZENE	0.1	0.0	0.0	0.09	0.00	0.00	2	0	0	1	0	0
1M3ETBENZ	1.3	0.2	0.3	0.99	1.67	0.84	18	2	3	11	1	2
135MEBENZ	0.5	0.1	0.1	0.36	1.00	0.21	7	1	1	4	1	1
1M2ETBENZ	0.5	0.1	0.2	0.40	0.67	0.42	8	1	2	5	0	1
124MBENZ	1.3	0.3	0.4	1.03	2.68	1.05	19	2	4	12	2	3
SBUBENZENE	0.1	0.0	0.1	0.09	0.33	0.21	2	0	1	1	0	1
N DECANE	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.2	0.1	0.1	0.18	0.67	0.21	3	1	1	2	0	1
INDANE	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0
1JEBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.2	0.0	0.1	0.18	0.00	0.21	3	0	1	2	0	1
1M3PRBENZ	0.5	0.0	0.1	0.40	0.00	0.21	8	0	1	5	0	1
UNKNOWNS	5.7	0.6	1.3	4.45	5.00	3.56	84	5	14	52	3	9

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40402
DATE RUN: 02 10 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: L J WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 40

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	217.7	14.2	36.2
GC PPMC	182.5	12.0	24.7

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	34.3	5.5	6.9	18.79	45.87	27.94	534	62	107	332	38	66
SATURATES	65.7	4.0	11.0	36.00	33.28	44.53	915	40	152	569	25	95
OLEFINS	35.0	0.4	3.3	19.18	3.34	13.36	476	4	45	296	2	28
ACETYLENE	11.1	0.0	0.5	6.08	0.00	2.02	140	0	6	87	0	4
NAPTHENES	3.1	0.1	0.3	1.70	0.83	1.21	42	1	4	26	1	3
AROMATICS	27.4	1.4	2.2	15.01	11.68	8.91	350	13	28	218	8	17
BENZENE	5.5	0.1	0.3	3.01	0.83	1.21	69	1	4	43	1	2
TOLUENE	7.4	0.2	0.7	4.05	1.67	2.83	95	2	9	59	1	6
C8+AROM	14.5	1.1	1.2	7.95	9.17	4.86	188	10	15	117	6	10
UNKNOWN	5.9	0.6	0.5	0.00	0.00	0.00	77	6	6	48	4	4
INDIVIDUAL COMPONENTS												
METHANE	34.3	5.5	6.9	18.79	45.87	27.94	534	62	107	332	38	66
ETHYLENE	16.2	0.2	1.5	8.88	1.67	6.07	220	2	20	137	1	13
ETHANE	2.6	0.8	1.4	1.42	6.67	5.67	38	8	20	24	5	13
ACETYLENE	11.1	0.0	0.5	6.08	0.00	2.02	140	0	6	87	0	4
C3 + C3=	6.1	0.1	0.9	3.34	0.83	3.64	83	1	12	52	1	8
C=C=C	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.8	0.2	0.3	0.44	1.67	1.21	11	2	4	7	1	3
B1 + IB	4.2	0.1	0.4	2.30	0.83	1.62	57	1	5	36	1	3
NC4 +B=1=3	4.8	0.8	1.6	2.63	6.67	6.48	68	8	22	42	5	14
TBUTENE-2	0.9	0.8	0.1	0.49	0.00	0.40	12	0	1	8	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.7	0.0	0.1	0.38	0.00	0.40	10	0	1	6	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.0	0.11	0.00	0.00	3	0	0	2	0	0
ISOPENTANE	10.9	0.1	2.4	5.97	0.75	9.72	153	1	33	95	1	21
PENTENE-1	0.3	0.0	0.0	0.16	0.00	0.00	4	0	0	3	0	0
2MBUT-1	0.6	0.0	0.0	0.33	0.00	0.00	8	0	0	5	0	0
NPENTANE	1.4	0.1	0.3	0.77	0.83	1.21	20	1	4	12	1	3
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40402
DATE RUN: 02 10 76
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT-2	0.9	0.0	0.1	0.49	0.00	0.40	12	0	1	8	0	1
CISPENT-2	0.4	0.0	0.0	0.22	0.00	0.00	5	0	0	3	0	0
2MBUT-2	1.8	0.0	0.2	0.99	0.00	0.81	24	0	3	15	0	2
22MBUTANE	2.5	0.7	0.2	1.37	5.84	0.81	35	7	3	22	4	2
CYPENTENE	0.2	0.0	0.0	0.11	0.00	0.00	3	0	0	2	0	0
3MPENTENE	0.2	0.0	0.0	0.11	0.00	0.00	3	0	0	2	0	0
CYPENTANE	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
23MBUTANE	1.5	0.1	0.2	0.82	0.83	0.81	21	1	3	13	1	2
2MPENTANE	3.8	0.1	0.5	2.08	0.83	2.02	53	1	7	33	1	4
3MPENTANE	2.1	0.1	0.3	1.15	0.83	1.21	29	1	4	18	1	3
HEXENE-1	0.4	0.0	0.0	0.22	0.00	0.00	5	0	0	3	0	0
N HEXANE	0.9	0.0	0.1	0.49	0.00	0.40	13	0	1	8	0	1
TC6=3,=2	1.1	0.0	0.0	0.60	0.00	0.00	15	0	0	9	0	0
CC6=3	0.2	0.0	0.0	0.11	0.00	0.00	3	0	0	2	0	0
2MPENTENE2	0.5	0.0	0.0	0.27	0.00	0.00	7	0	0	4	0	0
MCYP4JM2C5	1.7	0.1	0.2	0.93	0.83	0.81	23	1	3	14	1	2
24MPENTANE	2.9	0.1	0.3	1.59	0.83	1.21	40	1	4	25	1	3
BENZENE	5.5	0.1	0.3	3.01	0.83	1.21	69	1	4	43	1	2
CYHEXANE	0.4	0.0	0.0	0.22	0.00	0.00	5	0	0	3	0	0
2MC6=23MC5	7.3	0.2	0.8	4.00	1.67	3.24	101	2	11	63	1	7
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.4	0.1	0.1	0.77	0.83	0.40	19	1	1	12	1	1
224MPENTAN	11.7	0.4	1.4	6.41	3.34	5.67	162	4	19	101	2	12
NHEPTANE	1.1	0.0	0.1	0.60	0.00	0.40	15	0	1	9	0	1
MCYHEXANE	0.8	0.0	0.1	0.44	0.00	0.40	11	0	1	7	0	1
2SMHEXANE	0.8	0.1	0.1	0.44	0.83	0.40	11	1	1	7	1	1
24MC6+233M	1.0	0.0	0.1	0.55	0.00	0.40	14	0	1	9	0	1
234MC5	3.0	0.1	0.3	1.64	0.83	1.21	42	1	4	26	1	3
TOLUENE	7.4	0.2	0.7	4.05	1.67	2.83	95	2	9	59	1	6
23MC6+4MC7	1.1	0.0	0.1	0.60	0.00	0.40	15	0	1	9	0	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40402
DATE RUN: 02 10 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	0.9	0.0	0.1	0.49	0.00	0.40	12	0	1	8	0	1
3MHEPTANE	0.9	0.0	0.1	0.49	0.00	0.40	12	0	1	8	0	1
255MC6	1.0	0.0	0.1	0.55	0.00	0.40	14	0	1	9	0	1
N OCTANE	0.3	0.0	0.0	0.16	0.00	0.00	4	0	0	3	0	0
223MC6	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
ET BENZENE	1.3	0.0	0.1	0.71	0.00	0.40	17	0	1	10	0	1
M+PXYLENE	5.3	0.1	0.4	2.90	0.83	1.62	68	1	5	42	1	3
244MC8	0.5	0.0	0.1	0.27	0.00	0.40	7	0	1	4	0	1
O XYLENE	1.8	0.1	0.1	0.99	0.83	0.40	23	1	1	14	1	1
N NONANE	0.4	0.0	0.0	0.22	0.00	0.00	6	0	0	3	0	0
IPRBENZENE	0.2	0.0	0.0	0.11	0.00	0.00	3	0	0	2	0	0
NPRBENZENE	0.2	0.0	0.0	0.11	0.00	0.00	3	0	0	2	0	0
1M3ETBENZ	1.7	0.1	0.1	0.93	0.83	0.40	22	1	1	14	1	1
135MEBENZ	0.6	0.1	0.1	0.33	0.83	0.40	8	1	1	5	1	1
1M2ETBENZ	0.5	0.0	0.1	0.27	0.00	0.40	6	0	1	4	0	1
124MBENZ	1.9	0.3	0.2	1.04	2.50	0.81	25	3	3	15	2	2
SBUBENZENE	0.1	0.1	0.0	0.05	0.83	0.00	1	1	0	1	1	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.3	0.1	0.0	0.16	0.83	0.00	4	1	0	2	1	0
INDANE	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
1M3EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.2	0.1	0.0	0.11	0.83	0.00	3	1	0	2	1	0
1M3PRBENZ	0.3	0.1	0.1	0.16	0.83	0.40	4	1	1	2	1	1
UNKNOWNS	5.9	0.6	0.5	3.23	5.00	2.02	77	6	6	48	4	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40601
DATE RUN: 01 16 76
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: G S MYER FUEL: SUNNER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PRUCEDURE

TEST TEMPERATURE = 60

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	137.9	12.2	100.1
GC PPMC	133.2	9.9	90.4

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	16.0	3.0	9.5	12.04	30.77	10.50	210	39	131	130	24	81
SATURATES	53.8	4.5	40.8	40.36	44.97	45.17	630	50	504	392	31	313
OLEFINS	21.8	0.9	10.0	16.40	9.47	11.08	250	10	121	155	6	75
ACETYLENE	4.1	0.0	0.7	3.09	0.00	0.83	44	0	8	27	0	5
NAPTHENES	2.5	0.0	1.6	1.88	0.00	1.77	29	0	19	18	0	12
AROMATICS	29.7	1.4	25.2	22.31	14.20	27.83	319	15	285	199	9	177
BENZENE	5.1	0.1	3.2	3.81	1.18	3.54	54	1	36	34	1	22
TOLUENE	10.5	0.5	7.5	7.90	4.73	8.25	113	5	84	70	3	52
C8+AROM	14.1	0.8	14.5	10.60	8.28	16.04	154	9	167	96	5	104
UNKNOWN	5.2	0.1	2.6	0.00	0.00	0.00	57	1	30	36	0	18
INDIVIDUAL COMPONENTS												
METHANE	16.0	3.0	9.5	12.04	30.77	10.50	210	39	131	130	24	81
ETHYLENE	7.5	0.1	2.8	5.63	1.18	3.07	86	1	33	54	1	21
ETHANE	1.9	0.5	1.5	1.44	4.73	1.65	23	6	19	15	3	12
ACETYLENE	4.1	0.0	0.7	3.09	0.00	0.83	44	0	8	27	0	5
C3 + C3=	5.4	0.0	2.5	4.09	0.00	2.71	62	0	30	39	0	18
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.7	0.1	1.2	0.50	1.18	1.30	8	1	15	5	1	9
B1 + IB	3.8	0.1	1.4	2.87	0.59	1.53	44	1	17	27	0	10
NC4 +B=1=3	3.5	0.4	4.4	2.65	3.55	4.83	42	4	55	26	3	34
TBUTENE-2	0.7	0.0	0.3	0.50	0.00	0.35	8	0	4	5	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.4	0.0	0.2	0.28	0.00	0.24	4	0	3	3	0	2
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.11	0.00	0.00	2	0	0	1	0	0
ISOPENTANE	5.3	0.4	6.1	3.98	3.55	6.72	62	4	75	39	2	47
PENTENE-1	0.1	0.0	0.1	0.11	0.00	0.12	2	0	1	1	0	1
2MBUT-1	0.4	0.1	0.2	0.33	0.59	0.24	5	1	3	3	0	2
NPENTANE	1.1	0.0	1.1	0.83	0.00	1.18	13	0	13	8	0	8
2MB=1=3	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40601
DATE RUN: 01 16 78
CAR: 1977 PLYMOUTH FURY CAL F VIN: RL41G7A222946 DRIVER: G S HYFK FUEL: SUNNER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	0.5	0.0	0.4	0.39	0.00	0.47	6	0	5	4	0	3
CISPENT-2	0.2	0.0	0.2	0.17	0.00	0.24	3	0	3	2	0	2
2MBUT-2	1.3	0.6	1.1	0.94	0.51	1.18	14	7	13	9	4	8
22MBUTANE	0.0	0.1	0.1	0.00	0.59	0.12	0	1	1	0	0	1
CYPENTENE	0.1	0.1	0.1	0.06	0.59	0.12	1	1	1	1	0	1
3MPENTENE	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.1	0.0	0.0	0.11	0.00	0.00	2	0	0	1	0	0
23MBUTANE	1.3	0.6	1.1	0.99	5.92	1.18	16	7	13	10	4	8
2MPENTANE	2.9	1.3	2.5	2.15	13.61	2.71	34	15	30	21	9	19
3MPENTANE	1.5	0.6	1.2	1.10	6.51	1.30	17	7	14	11	5	9
HEXENE-1	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
N HEXANE	0.9	0.0	0.6	0.66	0.00	0.71	10	0	8	6	0	5
TC6=3,=2	0.7	0.0	0.5	0.58	0.00	0.59	8	0	6	5	0	4
CC6=3	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.3	0.0	0.2	0.22	0.00	0.24	3	0	3	2	0	2
MCYP43M2C5	1.3	0.0	1.0	0.99	0.00	1.06	15	0	12	9	0	7
24MPENTANE	2.2	0.0	1.5	1.66	0.00	1.65	26	0	18	16	0	11
BENZENE	5.1	0.1	3.2	3.81	1.18	3.54	54	1	36	34	1	22
CYHEXANE	0.1	0.0	0.1	0.11	0.00	0.12	2	0	1	1	0	1
2MC6+23MC5	5.4	0.1	3.5	4.03	1.18	3.89	63	1	43	39	1	27
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.5	0.3	1.0	1.10	2.96	1.06	17	3	12	11	2	7
224MPENTAN	11.0	0.0	6.7	8.28	0.00	7.43	129	0	82	80	0	51
NHEPTANE	1.1	0.0	0.7	0.83	0.00	0.83	13	0	9	8	0	6
MCYHEXANE	0.7	0.0	0.4	0.50	0.00	0.47	8	0	5	5	0	3
25MHEXANE	1.6	0.1	0.9	1.21	0.59	0.94	19	1	10	12	0	7
24MC6+233M	1.0	0.0	0.6	0.77	0.00	0.71	12	0	8	7	0	5
234MC5	4.0	0.1	2.1	2.98	0.59	2.36	46	1	26	29	0	16
TOLUENE	10.5	0.5	7.5	7.90	4.73	8.25	113	5	84	70	3	52
23MC6+4MC7	1.4	0.0	0.9	1.05	0.00	0.94	16	0	10	10	0	7

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40601
DATE RUN: 01 16 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: G S HYCK FUEL: SUNNER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.2	0.0	0.7	0.88	0.00	0.83	14	0	9	9	0	6
3MHEPTANE	1.1	0.0	0.6	0.83	0.00	0.71	13	0	8	8	0	5
255MC6	1.5	0.0	0.9	1.16	0.00	0.94	18	0	10	11	0	6
N OCTANE	0.5	0.0	0.3	0.39	0.00	0.35	6	0	4	4	0	2
223MC6	0.1	0.0	0.1	0.11	0.00	0.12	2	0	1	1	0	1
ETCYHEXANE	0.2	0.0	0.1	0.17	0.00	0.12	3	0	1	2	0	1
ET BENZENE	1.3	0.1	1.1	0.99	0.59	1.18	14	1	12	9	0	8
M+PXYLENE	5.4	0.4	5.5	4.03	3.55	6.13	58	4	63	36	2	39
244MC8	0.7	0.0	0.4	0.50	0.00	0.47	8	0	5	5	0	3
O XYLENE	2.0	0.1	2.0	1.49	1.18	2.24	22	1	23	13	1	14
N NONANE	0.4	0.0	0.2	0.28	0.00	0.24	4	0	3	3	0	2
IPRBENZENE	0.4	0.0	0.2	0.28	0.00	0.24	4	0	2	2	0	2
NPRBENZENE	0.2	0.0	0.2	0.17	0.00	0.24	2	0	2	1	0	2
1M3ETBENZ	1.5	0.1	1.8	1.16	0.59	2.00	17	1	21	10	0	13
135MEBENZ	0.6	0.0	0.6	0.44	0.00	0.71	6	0	7	4	0	5
1M2ETBENZ	0.5	0.0	0.3	0.39	0.00	0.35	6	0	4	3	0	2
124MBENZ	1.5	0.2	1.9	1.16	2.37	2.12	17	2	22	10	2	14
SBUBENZENE	0.1	0.0	0.1	0.06	0.00	0.12	1	0	1	1	0	1
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.2	0.0	0.2	0.17	0.00	0.24	2	0	2	1	0	2
INDANE	0.1	0.0	0.1	0.06	0.00	0.12	1	0	1	0	0	1
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.2	0.11	0.00	0.24	2	0	2	1	0	2
1M3PRBENZ	0.1	0.0	0.1	0.11	0.00	0.12	2	0	1	1	0	1
UNKNOWNS	5.2	0.1	2.6	3.92	0.59	2.83	57	1	30	36	0	18

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40602
DATE RUN: 02 02 77
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: SWARTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 60

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	175.6	19.5	65.3
GC PPMC	138.8	20.7	55.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	10.3	4.3	6.4	11.75	20.74	11.57	262	54	91	163	33	56
SATURATES	60.0	13.1	27.8	47.54	63.21	50.20	946	147	353	589	91	219
OLEFINS	19.4	1.0	7.0	14.00	4.68	12.74	273	11	88	169	7	54
ACETYLENE	5.1	0.1	0.4	3.69	0.67	0.78	67	1	5	41	1	3
NAPTHENES	3.3	0.2	1.3	2.40	1.00	2.34	47	2	16	29	1	10
AROMATICS	23.7	1.3	10.6	17.04	6.35	19.12	312	14	123	194	8	77
BENZENE	4.6	0.4	1.9	3.31	2.01	3.51	60	4	22	37	3	14
TOLUENE	9.2	0.6	3.8	6.62	3.01	6.89	121	6	44	75	4	28
C8+AROM	9.9	0.3	4.8	7.10	1.34	8.71	132	3	57	82	2	35
UNKNOWN	5.0	0.7	1.8	0.00	0.00	0.00	67	7	21	41	5	13
INDIVIDUAL COMPONENTS												
METHANE	10.3	4.3	6.4	11.75	20.74	11.57	262	54	91	163	33	56
ETHYLENE	6.9	0.6	2.2	4.97	2.68	3.90	97	6	27	60	4	17
ETHANE	2.0	0.8	1.2	1.44	4.01	2.21	30	10	16	19	6	10
ACETYLENE	5.1	0.1	0.4	3.69	0.67	0.78	67	1	5	41	1	3
C3 + C3=	4.2	0.3	1.7	3.04	1.34	2.99	59	3	21	37	2	13
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.4	0.1	0.5	0.27	0.67	0.91	5	2	6	3	1	4
B1 + 1B	2.8	0.1	1.1	2.03	0.67	1.95	40	2	13	25	1	8
NC4 +B=1=3	3.4	1.0	3.6	2.46	4.68	6.50	50	11	46	31	7	29
TBUTENE-2	0.4	0.0	0.2	0.27	0.00	0.39	5	0	3	3	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.3	0.0	0.1	0.21	0.00	0.26	4	0	2	3	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.1	0.11	0.00	0.13	2	0	1	1	0	1
ISOPENTANE	5.6	1.2	4.7	4.06	6.02	8.45	81	14	60	51	9	37
PENTENE-1	0.1	0.0	0.0	0.11	0.00	0.00	2	0	0	1	0	0
2MBUT-1	0.4	0.0	0.1	0.32	0.00	0.26	6	0	2	4	0	1
NPENTANE	1.3	0.2	0.9	0.96	1.00	1.69	19	2	12	12	1	7
2MB=1=3	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40602
DATE RUN: 02 02 77
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
TPENT=2		0.5	0.0	0.3		0.37	0.00	0.52		7	0	4		5	0	2
CISPENT-2		0.2	0.0	0.1		0.16	0.00	0.26		3	0	2		2	0	1
2MBUT-2		1.0	0.0	0.5		0.69	0.00	0.91		14	0	6		8	0	4
22MBUTANE		2.9	4.6	0.1		2.08	22.41	0.13		42	52	1		26	32	1
CYPENTENE		0.1	0.0	0.1		0.11	0.00	0.13		2	0	1		1	0	1
3MPENTENE		0.1	0.0	0.0		0.05	0.00	0.00		1	0	0		1	0	0
CYPENTANE		0.1	0.0	0.0		0.11	0.00	0.00		2	0	0		1	0	0
23MBUTANE		1.3	0.1	0.1		0.91	0.67	0.26		18	2	2		11	1	1
2MPENTANE		3.6	0.5	0.5		2.56	2.34	0.91		51	5	6		32	3	4
3MPENTANE		2.0	0.2	0.2		1.44	1.00	0.39		29	2	3		18	1	2
HEXENE-1		0.4	0.0	0.0		0.32	0.00	0.00		6	0	0		4	0	0
N HEXANE		1.3	0.1	0.6		0.91	0.67	1.04		18	2	7		11	1	5
TC6=3,=2		1.0	0.0	0.4		0.69	0.00	0.65		14	0	4		8	0	3
CC6=3		0.2	0.0	0.1		0.16	0.00	0.13		3	0	1		2	0	1
2MPENTENE2		0.4	0.0	0.1		0.32	0.00	0.26		6	0	2		4	0	1
MCYP43M2C5		1.7	0.1	0.8		1.23	0.67	1.43		24	2	10		15	1	6
24MPENTANE		2.7	0.3	1.2		1.98	1.34	2.21		39	3	15		24	2	10
BENZENE		4.6	0.4	1.9		3.31	2.01	3.51		60	4	22		37	3	14
CYHEXANE		0.4	0.0	0.1		0.32	0.00	0.13		6	0	1		4	0	1
2MC6+23MC5		7.3	0.6	0.3		5.24	3.01	0.52		104	7	4		65	4	2
24MHEXANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
3MHEXANE		1.9	0.1	0.8		1.39	0.67	1.43		28	2	10		17	1	6
224MPENTAN		15.3	1.9	6.5		11.06	9.03	11.83		219	21	83		136	13	51
MHEPTANE		1.8	0.1	0.6		1.28	0.33	1.17		25	1	8		16	0	5
MCYHEXANE		0.8	0.1	0.4		0.59	0.33	0.65		11	1	4		7	0	3
25MHEXANE		1.3	0.1	0.5		0.91	0.67	0.91		18	2	6		11	1	4
24MC6+233M		1.3	0.1	0.6		0.96	0.67	1.17		19	2	8		12	1	5
234MC5		4.2	0.3	1.8		2.99	1.67	3.25		59	4	23		37	2	14
TOLUENE		9.2	0.6	3.8		6.62	3.01	6.89		121	6	44		75	4	28
23MC6+4MC7		1.6	0.1	0.6		1.12	0.67	1.17		22	2	8		14	1	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40602
DATE RUN: 02 02 77
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHCXANE	1.3	0.1	0.6	0.96	0.33	1.04	19	1	7	12	0	5
3MHEPTANE	1.2	0.1	0.6	0.85	0.33	1.04	17	1	7	11	0	5
255MC6	1.0	0.1	0.4	0.69	0.33	0.78	14	1	5	9	0	3
N OCTANE	0.6	0.1	0.3	0.43	0.33	0.52	8	1	4	5	0	2
223MC6	0.1	0.0	0.1	0.05	0.00	0.13	1	0	1	1	0	1
ETCYHEXANE	0.2	0.0	0.1	0.16	0.00	0.13	3	0	1	2	0	1
ET BENZENE	1.0	0.0	0.4	0.75	0.00	0.78	14	0	5	9	0	3
M+PXYLENE	3.9	0.2	1.7	2.78	1.00	3.12	51	2	20	32	1	13
244MC8	0.4	0.1	0.2	0.32	0.33	0.39	6	1	3	4	0	2
O XYLENE	1.4	0.1	0.6	1.01	0.33	1.04	19	1	7	12	0	4
N NONANE	0.3	0.0	0.1	0.21	0.00	0.13	4	0	1	3	0	1
IPRBENZENE	0.2	0.0	0.1	0.16	0.00	0.26	3	0	2	2	0	1
NPRBENZENE	0.1	0.0	0.1	0.11	0.00	0.13	2	0	1	1	0	1
1M3ETBENZ	1.0	0.0	0.5	0.69	0.00	0.91	13	0	6	8	0	4
135MEBENZ	0.4	0.0	0.1	0.27	0.00	0.26	5	0	2	3	0	1
1M2ETBENZ	0.3	0.0	0.1	0.21	0.00	0.26	4	0	2	2	0	1
124MBENZ	1.0	0.0	0.6	0.75	0.00	1.17	14	0	8	9	0	5
SBUBENZENE	0.1	0.0	0.1	0.05	0.00	0.13	1	0	1	1	0	1
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.1	0.0	0.1	0.11	0.00	0.26	2	0	2	1	0	1
INDANE	0.0	0.0	0.1	0.00	0.00	0.13	0	0	1	0	0	1
13ERBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.1	0.11	0.00	0.13	2	0	1	1	0	1
1M3PRBENZ	0.1	0.0	0.1	0.11	0.00	0.13	2	0	1	1	0	1
UNKNOWNS	5.0	0.7	1.8	3.58	3.34	3.25	67	7	21	41	5	13

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40701
DATE RUN: 01 17 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: G S HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 70

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	103.1	10.8	62.2
GC PPMC	86.3	10.7	53.4

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	11.7	3.7	6.2	13.58	34.87	11.59	169	17	85	105	10	53
SATURATES	42.5	3.8	31.0	49.27	35.53	58.06	549	15	381	341	9	237
OLEFINS	8.3	0.0	5.1	9.59	0.00	9.59	104	0	61	65	0	38
ACETYLENE	0.0	0.2	0.0	0.00	1.97	0.00	0	1	0	0	0	0
NAPTHENES	2.0	0.1	1.2	2.30	0.66	2.21	25	0	14	16	0	9
AROMATICS	19.6	2.8	8.7	22.72	26.32	16.33	252	10	98	144	6	61
BENZENE	3.3	0.1	1.4	3.84	1.32	2.63	39	1	16	24	0	10
TOLUENE	8.0	0.6	3.4	9.29	5.92	6.43	95	2	39	59	1	24
C8+AROM	8.3	2.0	3.9	9.59	19.08	7.27	100	8	44	62	5	28
UNKNOWN	2.2	0.1	1.2	0.00	0.00	0.00	26	0	14	16	0	8
INDIVIDUAL COMPONENTS												
METHANE	11.7	3.7	6.2	13.58	34.87	11.59	169	17	85	105	10	53
ETHYLENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ETHANE	0.1	0.0	1.8	0.15	0.00	3.37	2	0	23	1	0	14
ACETYLENE	0.0	0.2	0.0	0.00	1.97	0.00	0	1	0	0	0	0
C3 + C3=	3.0	0.0	1.2	3.53	0.00	2.21	38	0	14	24	0	9
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.3	0.1	1.0	0.31	0.66	1.79	3	0	12	2	0	7
B1 + 1B	2.3	0.0	0.8	2.61	0.00	1.48	28	0	9	18	0	6
NC4 +B=1=3	1.7	0.5	3.9	2.00	4.61	7.27	22	2	48	14	1	30
TBUTENE-2	0.2	0.0	0.3	0.23	0.00	0.53	3	0	3	2	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.2	0.23	0.00	0.42	3	0	3	2	0	2
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	3.0	0.4	4.8	3.53	3.95	9.06	40	2	60	25	1	37
PENTENE-1	0.1	0.0	0.1	0.08	0.00	0.11	1	0	1	1	0	0
2MBUT-1	0.3	0.0	0.2	0.31	0.00	0.32	3	0	2	2	0	1
NPENTANE	0.7	0.1	0.8	0.77	1.32	1.58	9	1	10	5	0	6
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40701
DATE RUN: 01 17 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: G S MYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.3	0.0	0.9	0.31	0.00	1.69	3	0	11	2	0	7
CISPENT-2	0.1	0.0	0.1	0.15	0.00	0.21	2	0	1	1	0	1
2MBUT-2	0.7	0.0	0.7	0.77	0.00	1.37	8	0	9	5	0	5
22MBUTANE	2.8	1.7	1.4	3.30	15.79	2.63	37	7	17	23	4	11
CYPENTENE	0.1	0.0	0.1	0.08	0.00	0.11	1	0	1	1	0	0
3MPENTENE	0.1	0.0	0.0	0.15	0.00	0.00	2	0	0	1	0	0
CYPENTANE	0.3	0.1	0.1	0.31	0.66	0.21	3	0	1	2	0	1
23MBUTANE	1.6	0.0	0.8	1.84	0.00	1.48	21	0	10	13	0	6
2MPENTANE	2.1	0.3	1.7	2.46	2.63	3.16	27	1	21	17	1	13
3MPENTANE	1.2	0.1	0.9	1.38	0.66	1.69	15	0	11	10	0	7
HEXENE-1	0.1	0.0	0.1	0.08	0.00	0.11	1	0	1	1	0	0
N HEXANE	0.7	0.0	0.5	0.77	0.00	0.84	9	0	6	5	0	3
TC6=3,=2	0.5	0.0	0.3	0.61	0.00	0.63	7	0	4	4	0	3
CC6=3	0.1	0.0	0.1	0.08	0.00	0.11	1	0	1	1	0	0
2MPENTENE2	0.3	0.0	0.2	0.31	0.00	0.32	3	0	2	2	0	1
MCYP43M2C5	1.1	0.0	0.7	1.23	0.00	1.26	13	0	8	8	0	5
24MPENTANE	1.9	0.0	1.0	2.15	0.00	1.90	24	0	12	15	0	8
BENZENE	3.3	0.1	1.4	3.84	1.32	2.63	39	1	16	24	0	10
CYHEXANE	0.1	0.0	0.1	0.08	0.00	0.11	1	0	1	1	0	0
2MC6+23MC5	4.6	0.1	2.3	5.37	1.32	4.32	60	1	28	37	0	18
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.3	0.0	0.6	1.46	0.00	1.16	16	0	8	10	0	5
224MPENTAN	9.8	0.4	4.3	11.36	3.29	8.11	126	1	53	78	1	33
NHEPTANE	1.1	0.0	0.5	1.23	0.00	0.84	14	0	6	8	0	3
MCYHEXANE	0.5	0.0	0.2	0.54	0.00	0.42	6	0	3	4	0	2
25MHEXANE	1.6	0.1	0.6	1.84	0.66	1.05	20	0	7	13	0	4
24MC6+233M	0.6	0.0	0.5	0.69	0.00	0.84	8	0	5	5	0	3
234MC5	3.0	0.1	1.4	3.53	0.66	2.53	39	0	16	24	0	10
TOLUENE	8.0	0.6	3.4	9.29	5.92	6.43	95	2	39	59	1	24
23MC6+4MC7	0.9	0.0	0.5	1.07	0.00	0.95	12	0	6	7	0	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40701
DATE RUN: 01 17 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVEN: G S HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	0.8	0.0	0.5	0.92	0.00	0.84	10	0	5	6	0	3
3MHEPTANE	0.7	0.0	0.4	0.84	0.00	0.74	9	0	5	6	0	3
255MC6	0.9	0.0	0.5	1.07	0.00	0.95	12	0	6	7	0	4
N OCTANE	0.3	0.0	0.2	0.38	0.00	0.32	4	0	2	3	0	1
223MC6	0.1	0.0	0.1	0.15	0.00	0.11	2	0	1	1	0	0
ETCYHEXANE	0.1	0.0	0.1	0.15	0.00	0.21	2	0	1	1	0	1
ET BENZENE	0.9	0.1	0.4	1.07	1.32	0.74	11	1	4	7	0	3
M+PXYLENE	3.7	0.7	1.6	4.30	6.58	3.06	44	3	19	27	2	12
2+4MC8	0.4	0.0	0.2	0.46	0.00	0.32	5	0	2	3	0	1
O XYLENE	1.3	0.3	0.6	1.53	2.63	1.16	16	1	7	10	1	4
N NONANE	0.2	0.0	0.1	0.23	0.00	0.21	3	0	1	2	0	1
IPRBENZENE	0.1	0.0	0.1	0.15	0.00	0.21	2	0	1	1	0	1
NPRBENZENE	0.1	0.0	0.0	0.15	0.00	0.00	2	0	0	1	0	0
1M3ETBENZ	0.8	0.4	0.4	0.92	3.29	0.74	10	1	4	6	1	3
135MEBENZ	0.3	0.1	0.1	0.31	0.66	0.21	3	0	1	2	0	1
1M2ETBENZ	0.2	0.0	0.1	0.23	0.00	0.21	2	0	1	1	0	1
124MBENZ	0.7	0.4	0.4	0.77	3.95	0.74	8	2	4	5	1	3
SBUBENZENE	0.1	0.0	0.1	0.08	0.00	0.11	1	0	1	0	0	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.1	0.1	0.1	0.08	0.66	0.11	1	0	1	0	0	0
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1M3PRBENZ	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
UNKNOWNS	2.2	0.1	1.2	2.53	0.66	2.21	28	0	14	16	0	8

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40702
DATE RUN: 02 01 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: SWARTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 70

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	234.8	16.8	57.4
GC PPMC	188.8	18.4	50.0

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	19.0	5.0	7.0	10.08	27.19	14.06	310	70	96	193	44	60
SATURATES	84.6	9.3	25.5	44.81	50.32	51.05	1235	116	341	767	72	193
OLEFINS	28.6	1.1	6.5	15.16	6.09	12.94	408	14	77	254	9	48
ACETYLENE	6.8	0.1	0.5	3.59	0.41	0.98	90	1	5	56	1	3
NAPTHENES	4.5	0.2	0.9	2.37	1.22	1.83	64	3	11	40	2	7
AROMATICS	38.0	2.3	8.0	20.13	12.75	16.03	509	27	90	316	17	56
BENZENE	6.5	0.4	1.8	3.46	2.43	3.52	86	5	19	54	3	12
TOLUENE	14.2	0.7	3.1	7.51	3.65	6.19	190	8	35	118	5	22
C8+AROM	17.3	1.2	3.2	9.16	6.66	6.33	235	14	36	146	9	22
UNKNOWN	7.3	0.4	1.5	0.00	0.00	0.00	99	4	18	62	3	11
INDIVIDUAL COMPONENTS												
METHANE	19.0	5.0	7.0	10.08	27.19	14.06	310	70	96	193	44	60
ETHYLENE	9.0	0.6	2.1	4.78	3.25	4.22	129	7	25	80	5	16
ETHANE	2.4	0.7	1.1	1.29	3.65	2.25	37	9	14	23	5	9
ACETYLENE	6.8	0.1	0.5	3.59	0.41	0.98	90	1	5	56	1	3
C3 + C3=	7.9	0.3	1.6	4.18	1.62	3.23	113	4	19	70	2	12
C=C=C	0.2	0.0	0.0	0.10	0.00	0.00	3	0	0	2	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.5	0.1	0.4	0.26	0.81	0.84	7	2	5	5	1	3
B1 + IB	4.1	0.2	1.0	2.17	1.22	1.97	59	3	12	36	2	7
NC4 +B=1=3	4.3	1.0	3.0	2.27	5.68	6.05	63	13	37	39	8	23
TBUTENE-2	0.6	0.0	0.1	0.33	0.00	0.28	9	0	2	6	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.4	0.0	0.1	0.20	0.00	0.28	5	0	2	3	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.0	0.10	0.00	0.00	3	0	0	2	0	0
ISOPENTANE	6.4	1.3	3.9	3.39	7.30	7.74	94	17	47	58	11	29
PENTENE-1	0.2	0.0	0.1	0.13	0.00	0.14	4	0	1	2	0	1
2MBUT-1	0.6	0.0	0.1	0.33	0.00	0.28	9	0	2	6	0	1
NPENTANE	1.5	0.2	0.8	0.79	1.22	1.55	22	3	9	14	2	6
2MB=1=3	0.1	0.0	0.0	0.07	0.00	0.00	2	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40702
DATE RUN: 02 01 76
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	0.7	0.0	0.2	0.36	0.00	0.42	10	0	3	6	0	2
CISPENT-2	0.3	0.0	0.1	0.16	0.00	0.14	4	0	1	3	0	1
2MBUT-2	1.4	0.0	0.5	0.76	0.00	0.98	20	0	6	13	0	4
22MBUTANE	0.1	0.4	0.0	0.07	2.03	0.00	2	5	0	1	3	0
CYPENTENE	0.2	0.0	0.0	0.10	0.00	0.00	3	0	0	2	0	0
3MPENTENE	0.1	0.0	0.1	0.07	0.00	0.14	2	0	1	1	0	1
CYPENTANE	0.2	0.0	0.0	0.10	0.00	0.00	3	0	0	2	0	0
23MBUTANE	1.5	0.2	0.5	0.79	1.22	0.98	22	3	6	14	2	4
2MPENTANE	4.6	0.5	1.5	2.44	2.84	2.95	67	7	18	42	4	11
3MPENTANE	2.3	0.2	0.8	1.22	1.22	1.55	34	3	9	21	2	6
MEXENE-1	0.5	0.0	0.0	0.26	0.00	0.00	7	0	0	4	0	0
N HEXANE	1.4	0.1	0.4	0.76	0.81	0.84	21	2	5	13	1	3
TC6=3,=2	1.2	0.0	0.2	0.63	0.00	0.42	17	0	3	10	0	2
CC6=3	0.2	0.0	0.1	0.13	0.00	0.14	4	0	1	2	0	1
2MPENTENE2	0.6	0.0	0.1	0.30	0.00	0.28	8	0	2	5	0	1
MCYP43M2C5	2.1	0.1	0.6	1.12	0.81	1.13	30	2	7	19	1	4
24MPENTANE	3.4	0.3	0.9	1.81	1.62	1.83	50	4	11	31	2	7
BENZENE	6.5	0.4	1.8	3.46	2.43	3.52	86	5	19	54	3	12
CYMEXANE	0.5	0.0	0.1	0.26	0.00	0.14	7	0	1	4	0	1
2MC6+23MC5	9.3	0.7	2.2	4.91	3.65	4.36	135	8	26	84	5	16
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.7	0.1	0.6	1.42	0.81	1.13	39	2	7	24	1	4
224MPNTAN	21.1	2.0	5.0	11.17	10.96	9.99	306	25	61	190	16	38
NHEPTANE	2.6	0.1	0.4	1.35	0.41	0.84	37	1	5	23	1	3
MCYHEXANE	1.2	0.1	0.2	0.66	0.41	0.42	18	1	3	11	1	2
25MHEXANE	2.7	0.1	0.4	1.42	0.81	0.70	39	2	4	24	1	3
24MC6+233M	1.7	0.1	0.4	0.92	0.81	0.84	25	2	5	16	1	3
234MC5	6.7	0.4	1.3	3.53	2.03	2.53	97	5	15	60	3	10
TOLUENE	14.2	0.7	3.1	7.51	3.65	6.19	198	8	35	118	5	22
23MC6+4MC7	2.3	0.1	0.5	1.22	0.81	0.98	33	2	6	21	1	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40702
DATE RUN: 02 01 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVEN: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	2.0	0.1	0.4	1.05	0.41	0.84	29	1	5	18	1	3
3MHEPTANE	1.8	0.1	0.4	0.96	0.41	0.84	26	1	5	16	1	3
255MC6	1.4	0.1	0.3	0.76	0.41	0.56	21	1	3	13	1	2
N OCTANE	0.7	0.1	0.2	0.40	0.41	0.42	11	1	3	7	1	2
223MC6	0.2	0.0	0.1	0.10	0.00	0.14	3	0	1	2	0	1
ETCYHEXANE	0.4	0.0	0.1	0.23	0.00	0.14	6	0	1	4	0	1
ET BENZENE	2.3	0.1	0.4	1.22	0.41	0.70	31	1	4	19	1	2
M+PXYLENE	6.5	0.2	1.5	3.43	1.22	2.95	87	3	17	54	2	10
2+4MC8	0.9	0.0	0.1	0.46	0.00	0.28	13	0	2	8	0	1
O XYLENE	2.2	0.1	0.6	1.19	0.41	1.13	30	1	6	19	1	4
N NONANE	0.1	0.0	0.0	0.07	0.00	0.00	2	0	0	1	0	0
IPRBENZENE	0.4	0.0	0.0	0.20	0.00	0.00	5	0	0	3	0	0
NPRBENZENE	0.3	0.0	0.0	0.16	0.00	0.00	4	0	0	3	0	0
1M3ETBENZ	1.7	0.1	0.1	0.89	0.41	0.14	23	1	1	14	1	0
135MEBENZ	0.6	0.1	0.1	0.33	0.41	0.14	8	1	1	5	1	0
1M2ETBENZ	0.6	0.0	0.0	0.30	0.00	0.00	8	0	0	5	0	0
124MBENZ	1.7	0.3	0.3	0.89	1.62	0.56	23	3	3	14	2	2
SBUBENZENE	0.1	0.1	0.1	0.07	0.41	0.14	2	1	1	1	1	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.3	0.1	0.1	0.16	0.57	0.14	4	1	1	3	1	0
INDANE	0.1	0.0	0.0	0.03	0.00	0.00	1	0	0	1	0	0
13ERENZENE	0.1	0.0	0.0	0.03	0.00	0.00	1	0	0	1	0	0
NBUBENZENE	0.2	0.1	0.1	0.13	0.41	0.14	3	1	1	2	1	0
1M3PRBENZ	0.2	0.1	0.1	0.13	0.81	0.28	3	2	2	2	1	1
UNKNOWNS	7.3	0.4	1.5	3.86	2.03	3.09	99	4	18	62	3	11

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40801
DATE RUN: 01 18 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: HYECK FUEL: SUMNER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	78.8	13.5	82.1
GC PPMC	56.1	11.1	62.8

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
MAJOR COMPONENTS												
METHANE	11.6	4.8	6.1	20.68	42.95	9.65	187	33	94	116	20	59
SATURATES	25.6	4.5	39.3	45.57	40.94	62.65	369	28	547	229	17	340
OLEFINS	4.1	0.1	6.4	7.38	1.34	10.19	58	1	87	36	1	54
ACETYLENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NAPTHENES	1.2	0.1	1.7	2.11	1.34	2.68	17	1	23	10	1	14
AROMATICS	12.4	1.5	9.3	22.15	13.42	14.83	165	8	119	102	5	74
BENZENE	2.4	0.1	1.7	4.32	1.34	2.77	32	1	22	20	1	14
TOLUENE	4.6	0.4	4.1	8.23	3.36	6.52	61	2	52	38	1	32
C8+AROM	5.4	1.0	3.5	9.60	8.72	5.54	72	6	45	45	3	28
UNKNOWN	1.2	0.0	0.0	0.00	0.00	0.00	16	0	0	10	0	0
INDIVIDUAL COMPONENTS												
METHANE	11.6	4.8	6.1	20.68	42.95	9.65	187	33	94	116	20	59
ETHYLENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ETHANE	4.1	0.3	2.0	7.28	2.68	3.22	62	2	29	38	1	18
ACETYLENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
C3 + C3=	0.1	0.1	1.5	0.11	0.67	2.32	1	0	20	1	0	12
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.1	0.1	1.5	0.21	0.67	2.32	2	0	21	1	0	13
B1 + IB	2.3	0.1	0.8	4.11	0.67	1.34	33	0	11	20	0	7
NC4 +B=1=3	1.1	0.6	5.6	2.00	5.37	8.85	16	4	78	10	2	49
TBUTENE-2	0.2	0.0	0.4	0.42	0.00	0.71	3	0	6	2	0	4
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.3	0.32	0.00	0.54	3	0	5	2	0	3
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.1	0.11	0.00	0.09	1	0	1	1	0	0
ISOPENTANE	2.4	0.4	6.7	4.22	4.03	10.63	34	3	93	21	2	58
PENTENE-1	0.1	0.0	0.1	0.11	0.00	0.18	1	0	2	1	0	1
2MBUT-1	0.2	0.0	0.3	0.32	0.00	0.45	3	0	4	2	0	2
NPENTANE	0.5	0.1	1.1	0.84	0.67	1.79	7	0	16	4	0	10
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40H01
DATE RUN: 01 18 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVEN: HYECK FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	0.1	0.0	0.5	0.21	0.00	0.80	2	0	7	1	0	4
CISPENT-2	0.1	0.0	0.2	0.11	0.00	0.36	1	0	3	1	0	2
2MBUT-2	0.5	0.0	1.1	0.84	0.00	1.79	7	0	15	4	0	9
22MBUTANE	0.9	1.7	0.1	1.69	15.44	0.09	14	11	1	8	7	0
CYPENTENE	0.0	0.0	0.1	0.00	0.00	0.18	0	0	1	0	0	1
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.4	0.1	0.2	0.63	0.67	0.36	5	0	3	3	0	2
23MBUTANE	0.7	0.1	1.4	1.27	1.34	2.23	10	1	20	6	1	12
2MPENTANE	1.1	0.1	2.1	1.90	1.34	3.40	15	1	30	10	1	18
3MPENTANE	0.7	0.1	1.2	1.16	0.67	1.88	9	0	16	6	0	10
HEXENE-1	0.0	0.0	0.1	0.00	0.00	0.18	0	0	2	0	0	1
N HEXANE	0.4	0.0	0.6	0.63	0.00	0.98	5	0	9	3	0	5
TC6=3,=2	0.2	0.0	0.5	0.42	0.00	0.80	3	0	7	2	0	4
CC6=3	0.1	0.0	0.1	0.11	0.00	0.09	1	0	1	1	0	0
2MPENTENE2	0.1	0.0	0.2	0.21	0.00	0.36	2	0	3	1	0	2
MCYP43M2C5	0.4	0.1	0.8	0.74	0.67	1.34	6	0	11	4	0	7
24MPENTANE	0.8	0.0	1.3	1.48	0.00	2.14	12	0	19	7	0	12
BENZENE	2.4	0.1	1.7	4.32	1.34	2.77	32	1	22	20	1	14
CYHEXANE	0.1	0.0	0.2	0.11	0.00	0.27	1	0	2	1	0	1
2MC6+23MC5	2.1	0.1	3.0	3.69	1.34	4.83	30	1	42	19	1	26
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.6	0.0	0.8	1.05	0.00	1.34	9	0	12	5	0	7
224MPENTAN	4.5	0.5	5.7	8.02	4.70	9.03	65	3	78	40	2	49
NHEPTANE	0.4	0.0	0.7	0.74	0.00	1.07	6	0	9	4	0	6
MCYHEXANE	0.2	0.0	0.3	0.42	0.00	0.54	3	0	5	2	0	3
25MHEXANE	0.6	0.0	0.7	1.05	0.00	1.16	8	0	10	5	0	6
24MC6+233M	0.5	0.1	0.6	0.95	0.67	0.89	8	0	8	5	0	5
234MC5	1.4	0.1	1.7	2.53	0.67	2.66	20	0	23	13	0	14
TOLUENE	4.6	0.4	4.1	8.23	3.36	6.52	61	2	52	38	1	32
23MC6+4MC7	0.5	0.0	0.6	0.95	0.00	0.89	8	0	8	5	0	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40801
DATE RUN: 01 18 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVEN: HYECK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	0.4	0.0	0.4	0.74	0.00	0.71	6	0	6	4	0	4
3MHEPTANE	0.4	0.0	0.4	0.63	0.00	0.63	5	0	5	3	0	3
255MC6	0.7	0.0	0.7	1.16	0.00	1.07	9	0	9	6	0	6
N OCTANE	0.2	0.0	0.2	0.42	0.00	0.36	3	0	3	2	0	2
223MC6	0.1	0.0	0.1	0.11	0.00	0.09	1	0	1	1	0	0
ETCYHEXANE	0.1	0.0	0.1	0.21	0.00	0.18	2	0	2	1	0	1
ET BENZENE	0.5	0.1	0.4	0.95	0.67	0.71	7	0	6	4	0	4
M+PXYLENE	2.2	0.3	1.9	3.90	2.68	3.04	29	2	25	18	1	15
244MC8	0.3	0.1	0.2	0.53	1.34	0.36	4	1	3	3	1	2
O XYLENE	0.8	0.0	0.7	1.48	0.00	1.07	11	0	9	7	0	5
N NONANE	0.2	0.0	0.0	0.32	0.00	0.00	3	0	0	2	0	0
IPRBENZENE	0.2	0.0	0.0	0.32	0.00	0.00	2	0	0	1	0	0
NPRBENZENE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	0	0	0
1M3ETBENZ	0.6	0.1	0.1	1.05	0.67	0.09	8	0	1	5	0	0
135MEBENZ	0.2	0.1	0.1	0.32	0.67	0.09	2	0	1	1	0	0
1M2ETBENZ	0.2	0.1	0.1	0.32	0.67	0.09	2	0	1	1	0	0
124MBENZ	0.5	0.4	0.3	0.95	3.36	0.45	7	2	4	4	1	2
SBUBENZENE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	0	0	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	0	0	0
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1M3PRBENZ	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
UNKNOWNS	1.2	0.0	0.0	2.11	0.00	0.00	16	0	0	10	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40602
DATE RUN: 01 19 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: HYECK FUEL: SUNNER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	73.7	13.1	76.9
GC PPMC	61.6	9.1	74.6

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	13.0	4.5	8.5	21.11	49.12	11.40	177	48	106	110	30	66
SATURATES	21.3	3.4	38.6	34.65	36.84	51.75	260	32	433	161	20	269
OLEFINS	11.9	0.2	10.8	19.30	2.63	14.52	141	2	119	88	1	74
ACETYLENE	2.2	0.0	1.6	3.61	0.00	2.14	25	0	16	15	0	10
NAPTHENES	1.0	0.0	1.5	1.58	0.00	2.05	12	0	17	7	0	10
AROMATICS	10.6	0.6	11.5	17.27	7.02	15.48	119	6	118	74	3	73
BENZENE	2.6	0.1	2.3	4.29	0.88	3.02	29	1	23	18	0	14
TOLUENE	4.2	0.2	4.4	6.77	2.63	5.95	47	2	46	29	1	28
C8+AROM	3.8	0.3	4.8	6.21	3.51	6.43	43	3	50	27	2	31
UNKNOWN	1.5	0.4	2.0	0.00	0.00	0.00	17	4	21	11	2	13
INDIVIDUAL COMPONENTS												
METHANE	13.0	4.5	8.5	21.11	49.12	11.40	177	48	106	110	30	66
ETHYLENE	4.4	0.1	3.2	7.11	0.88	4.29	52	1	35	32	0	22
ETHANE	1.6	0.6	1.3	2.60	7.02	1.75	20	6	15	13	4	10
ACETYLENE	2.2	0.0	1.6	3.61	0.00	2.14	25	0	16	15	0	10
C3 + C3=	3.3	0.1	2.0	5.42	0.88	2.63	40	1	21	25	0	13
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.3	0.1	1.3	0.45	0.88	1.75	3	1	15	2	0	9
B1 + IB	2.1	0.1	1.5	3.39	0.88	1.95	25	1	16	15	0	10
NC4 +B=1=3	1.6	0.5	5.5	2.60	5.26	7.31	20	5	62	12	3	38
TBUTENE-2	0.3	0.0	0.5	0.45	0.00	0.68	3	0	6	2	0	3
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.4	0.34	0.00	0.49	2	0	4	2	0	2
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.1	0.11	0.00	0.18	1	0	1	1	0	0
ISOPENTANE	2.3	0.4	5.3	3.72	4.39	7.12	28	4	60	17	2	37
PENTENE-1	0.0	0.0	0.1	0.00	0.00	0.18	0	0	1	0	0	0
2MBUT-1	0.1	0.0	0.3	0.23	0.00	0.39	2	0	3	1	0	2
NPENTANE	0.5	0.1	1.2	0.79	0.88	1.56	6	1	13	4	0	8
2MB=1=3	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40802
DATE RUN: 01 19 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: HYECK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.2	0.0	0.5	0.34	0.00	0.68	2	0	6	2	0	3
CISPENT-2	0.1	0.0	0.2	0.11	0.00	0.29	1	0	2	1	0	1
2MBUT-2	0.4	0.0	1.2	0.68	0.00	1.56	5	0	13	3	0	8
22MBUTANE	0.1	1.0	0.0	0.23	10.53	0.00	2	9	0	1	6	0
CYPENTENE	0.1	0.0	0.1	0.11	0.00	0.10	1	0	1	0	0	0
3MPENTENE	0.3	0.0	0.0	0.45	0.00	0.00	3	0	0	2	0	0
CYPENTANE	0.2	0.0	0.1	0.34	0.00	0.10	2	0	1	2	0	0
23MBUTANE	0.7	0.1	1.5	1.13	0.88	1.95	8	1	16	5	0	10
2MPENTANE	1.0	0.1	2.2	1.69	0.88	2.92	13	1	24	8	0	15
3MPENTANE	0.6	0.0	1.2	1.02	0.00	1.66	8	0	14	5	0	9
HEXENE-1	0.0	0.0	0.1	0.00	0.00	0.19	0	0	2	0	0	1
N HEXANE	0.3	0.0	0.7	0.56	0.00	0.88	4	0	7	3	0	5
TC6=3,=2	0.2	0.0	0.5	0.34	0.00	0.68	2	0	6	2	0	3
CC6=3	0.0	0.0	0.1	0.00	0.00	0.10	0	0	1	0	0	0
2MPENTENE2	0.1	0.0	0.2	0.11	0.00	0.29	1	0	2	1	0	1
MCYP43M2C5	0.4	0.0	0.9	0.68	0.00	1.17	5	0	10	3	0	6
24MPENTANE	0.8	0.0	1.5	1.35	0.00	1.95	10	0	16	6	0	10
BENZENE	2.6	0.1	2.3	4.29	0.88	3.02	29	1	23	18	0	14
CYHEXANE	0.1	0.0	0.1	0.11	0.00	0.10	1	0	1	1	0	0
2MC6+23MC5	2.0	0.2	3.3	3.27	1.75	4.39	24	2	37	15	1	23
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.6	0.0	0.9	0.90	0.00	1.17	7	0	10	4	0	6
224MPENTAN	4.1	0.3	6.2	6.66	3.51	8.28	50	3	69	31	2	43
NHEPTANE	0.4	0.0	0.7	0.68	0.00	0.88	5	0	7	3	0	5
MCYHEXANE	0.2	0.0	0.4	0.34	0.00	0.49	2	0	4	2	0	2
25MHEXANE	0.5	0.0	0.8	0.79	0.00	1.07	6	0	9	4	0	6
24MC6+233M	0.4	0.0	0.6	0.68	0.00	0.78	5	0	6	3	0	4
234MC5	1.3	0.1	1.9	2.03	0.88	2.53	15	1	21	9	0	13
TOLUENE	4.2	0.2	4.4	6.77	2.63	5.95	47	2	46	29	1	28
23MC6+4MC7	0.5	0.0	0.6	0.79	0.00	0.78	6	0	6	4	0	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40802
DATE RUN: 01 19 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: MYERS FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	0.4	0.0	0.4	0.68	0.00	0.58	5	0	5	3	0	3
3MHEPTANE	0.3	0.0	0.4	0.56	0.00	0.58	4	0	5	3	0	3
25MC6	0.5	0.0	0.7	0.79	0.00	0.97	6	0	8	4	0	5
N OCTANE	0.1	0.0	0.2	0.23	0.00	0.29	2	0	2	1	0	2
223MC6	0.1	0.0	0.1	0.11	0.00	0.10	1	0	1	1	0	1
ETCYHEXANE	0.1	0.0	0.1	0.11	0.00	0.19	1	0	2	1	0	1
ET BENZENE	0.4	0.0	0.4	0.68	0.00	0.58	5	0	5	3	0	3
M+PXYLENE	1.7	0.2	1.9	2.71	1.75	2.53	19	1	20	12	1	12
24MC8	0.1	0.0	0.2	0.23	0.00	0.29	2	0	2	1	0	2
O XYLENE	0.6	0.0	0.7	1.02	0.00	0.97	7	0	8	4	0	5
N NONANE	0.1	0.0	0.1	0.11	0.00	0.19	1	0	2	1	0	1
IPRBENZENE	0.1	0.0	0.1	0.11	0.00	0.19	1	0	2	0	0	1
NPRBENZENE	0.0	0.0	0.1	0.00	0.00	0.10	0	0	1	0	0	0
1M3ETBENZ	0.3	0.0	0.5	0.56	0.00	0.68	4	0	5	2	0	3
135MEBENZ	0.1	0.0	0.1	0.11	0.00	0.19	1	0	2	0	0	1
1M2ETBENZ	0.1	0.0	0.1	0.11	0.00	0.19	1	0	2	0	0	1
124MBENZ	0.4	0.2	0.6	0.68	1.75	0.78	5	1	6	3	1	4
SBUBENZENE	0.1	0.0	0.1	0.11	0.00	0.10	1	0	1	0	0	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.1	0.0	0.1	0.11	0.00	0.10	1	0	1	0	0	0
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1M3PRBENZ	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
UNKNOWNS	1.5	0.4	2.0	2.46	4.39	2.73	17	4	21	11	2	13

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40811
DATE RUN: 01 29 78 AIR CONDITIONER USED
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: HYECK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	116.6	18.6	100.3
GC PPMC	98.5	15.9	88.0

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	17.9	4.9	7.9	18.19	30.63	9.00	265	75	114	165	47	71
SATURATES	36.3	8.3	48.8	36.82	52.25	55.42	481	115	626	299	71	389
OLEFINS	19.2	0.9	10.8	19.49	5.41	12.25	249	12	135	154	7	84
ACETYLENE	2.4	0.1	1.1	2.45	0.45	1.25	29	1	13	18	1	8
NAPTHENES	1.6	0.2	1.9	1.59	1.35	2.21	20	3	24	13	2	15
AROMATICS	19.1	1.4	14.3	19.35	9.01	16.24	232	18	168	144	11	105
BENZENE	4.5	0.4	2.5	4.55	2.70	2.80	54	5	29	33	3	18
TOLUENE	6.8	0.6	5.0	6.86	3.60	5.68	82	7	59	51	5	37
C8+AROM	7.8	0.4	6.8	7.94	2.70	7.75	97	6	82	60	3	51
UNKNOWN	2.1	0.1	3.2	0.00	0.00	0.00	26	2	38	16	1	24
INDIVIDUAL COMPONENTS												
METHANE	17.9	4.9	7.9	18.19	30.63	9.00	265	75	114	165	47	71
ETHYLENE	7.0	0.4	2.9	7.15	2.70	3.32	91	6	37	57	4	23
ETHANE	1.9	0.8	1.4	1.95	4.95	1.55	27	11	18	17	7	11
ACETYLENE	2.4	0.1	1.1	2.45	0.45	1.25	29	1	13	18	1	8
C3 + C3=	5.2	0.3	1.9	5.27	1.80	2.21	67	4	24	42	2	15
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.3	0.1	1.1	0.29	0.90	1.25	4	2	14	2	1	9
B1 + 1B	3.2	0.1	1.4	3.25	0.90	1.55	41	2	17	26	1	11
NC4 +B=1=3	2.7	1.1	7.1	2.74	6.76	8.12	36	15	93	23	9	58
TBUTENE-2	0.4	0.0	0.5	0.36	0.00	0.52	5	0	6	3	0	4
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.3	0.0	0.3	0.29	0.00	0.37	4	0	4	2	0	3
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.1	0.14	0.00	0.07	2	0	1	1	0	1
ISOPENTANE	3.3	1.2	7.9	3.32	7.66	8.93	44	17	101	27	10	63
PENTENE-1	0.1	0.0	0.3	0.07	0.00	0.37	1	0	4	1	0	3
2MBUT-1	0.3	0.0	0.0	0.29	0.00	0.00	4	0	0	2	0	0
NPENTANE	0.7	0.2	1.4	0.72	1.35	1.62	9	3	18	6	2	11
2MB=1=3	0.2	0.0	0.0	0.22	0.00	0.00	3	0	0	2	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40811
DATE RUN: 01 29 78 AIR CONDITIONER USED
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: HYECK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.4	0.0	0.5	0.36	0.00	0.59	5	0	7	3	0	4
CISPENT-2	0.1	0.0	0.3	0.14	0.00	0.30	2	0	3	1	0	2
2MBUT-2	0.8	0.0	1.2	0.79	0.00	1.40	10	0	15	6	0	10
22MBUTANE	0.3	0.5	0.1	0.29	3.15	0.07	4	7	1	2	4	1
CYPENTENE	0.1	0.0	0.1	0.07	0.00	0.07	1	0	1	1	0	0
3MPENTENE	0.1	0.0	0.1	0.07	0.00	0.07	1	0	1	1	0	1
CYPENTANE	0.1	0.0	0.1	0.14	0.00	0.15	2	0	2	1	0	1
23MBUTANE	0.9	0.1	1.0	0.94	0.90	1.11	12	2	13	8	1	8
2MPENTANE	1.8	0.4	2.6	1.81	2.70	2.95	24	6	33	15	4	21
3MPENTANE	1.0	0.2	1.5	1.01	1.35	1.70	13	3	19	8	2	12
HEXENE-1	0.1	0.0	0.2	0.07	0.00	0.22	1	0	2	1	0	2
N HEXANE	0.6	0.1	0.8	0.58	0.45	0.89	8	1	10	5	1	6
TC6=3.=2	0.6	0.0	0.6	0.65	0.00	0.74	8	0	8	5	0	5
CC6=3	0.1	0.0	0.1	0.07	0.00	0.15	1	0	2	1	0	1
2MPENTENE2	0.2	0.0	0.3	0.22	0.00	0.30	3	0	3	2	0	2
MCYP43M2C5	0.8	0.1	1.0	0.79	0.90	1.18	10	2	13	6	1	8
24MPENTANE	1.4	0.2	1.6	1.37	1.35	1.85	18	3	21	11	2	13
BENZENE	4.5	0.4	2.5	4.56	2.70	2.80	54	5	29	33	3	18
CYHEXANE	0.1	0.0	0.2	0.07	0.00	0.22	1	0	2	1	0	2
2MC6+23MC5	3.6	0.6	4.0	3.61	3.60	4.50	47	8	51	29	5	32
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.0	0.1	1.1	1.01	0.90	1.25	13	2	14	8	1	9
224MPENTAN	8.3	1.6	8.5	8.45	10.36	9.67	110	23	109	68	14	68
NHEPTANE	0.9	0.1	1.0	0.87	0.45	1.11	11	1	12	7	1	8
MCYHEXANE	0.4	0.1	0.5	0.43	0.45	0.52	6	1	6	3	1	4
25MHEXANE	0.7	0.1	0.7	0.72	0.45	0.81	9	1	9	6	1	6
24MC6+233M	0.8	0.1	0.8	0.79	0.90	0.89	10	2	10	6	1	6
234MC5	2.3	0.4	2.4	2.38	2.25	2.73	31	5	31	19	3	19
TOLUENE	6.8	0.6	5.0	6.86	3.60	5.68	82	7	59	51	5	37
23MC6+4MC7	0.9	0.1	0.8	0.87	0.45	0.96	11	1	11	7	1	7

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40811
DATE RUN: 01 29 78 AIR CONDITIONER USED
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: HYECK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	0.8	0.1	0.8	0.79	0.45	0.89	10	1	10	6	1	6
3MHEPTANE	0.7	0.1	0.7	0.72	0.45	0.81	9	1	9	6	1	6
255MC6	0.6	0.1	0.6	0.58	0.45	0.66	7	1	7	5	1	5
N OCTANE	0.4	0.0	0.4	0.36	0.00	0.44	5	0	5	3	0	3
223MC6	0.1	0.0	0.1	0.07	0.00	0.07	1	0	1	1	0	1
ETCYHEXANE	0.1	0.0	0.1	0.14	0.00	0.15	2	0	2	1	0	1
ET BENZENE	0.9	0.0	0.6	0.87	0.00	0.74	10	0	8	6	0	5
M+PXYLENE	3.1	0.1	2.5	3.18	0.90	2.88	38	2	30	24	1	19
2+4MC8	0.4	0.0	0.3	0.36	0.00	0.37	5	0	4	3	0	3
O XYLENE	1.1	0.1	0.9	1.16	0.45	1.03	14	1	11	9	1	7
N NONANE	0.2	0.0	0.2	0.22	0.00	0.22	3	0	2	2	0	2
IPRBENZENE	0.1	0.0	0.2	0.14	0.00	0.22	2	0	2	1	0	1
NPRBENZENE	0.1	0.0	0.1	0.14	0.00	0.15	2	0	2	1	0	1
1M3ETBENZ	0.8	0.1	0.7	0.79	0.45	0.81	10	1	9	6	1	5
135MEBENZ	0.3	0.0	0.3	0.29	0.00	0.30	4	0	3	2	0	2
1M2ETBENZ	0.2	0.0	0.3	0.22	0.00	0.30	3	0	3	2	0	2
124MBENZ	0.8	0.1	0.8	0.79	0.90	0.89	10	2	9	6	1	6
SBUBENZENE	0.1	0.0	0.1	0.07	0.00	0.07	1	0	1	1	0	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.1	0.0	0.0	0.14	0.00	0.00	2	0	0	1	0	0
INDANE	0.0	0.0	0.1	0.00	0.00	0.07	0	0	1	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.1	0.07	0.00	0.15	1	0	2	1	0	1
1M3PRBENZ	0.1	0.0	0.1	0.07	0.00	0.15	1	0	2	1	0	1
UNKNOWNS	2.1	0.1	3.2	2.09	0.90	3.62	26	2	38	16	1	24

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40812
DATE RUN: 01 30 78 AIR CONDITIONER USED
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: SWARTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	115.5	19.0	85.7
GC PPMC	102.1	25.8	72.0

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	16.0	5.5	7.9	15.63	21.30	10.97	229	64	119	142	40	74
SATURATES	42.7	16.6	40.2	41.86	64.50	55.85	550	173	543	342	107	337
OLEFINS	16.3	1.5	9.7	15.96	5.62	13.51	205	15	128	127	9	80
ACETYLENE	2.8	0.2	0.8	2.75	0.89	1.18	33	2	10	20	1	6
NAPTHENES	1.9	0.2	1.5	1.90	0.89	2.09	24	2	20	15	1	12
AROMATICS	19.9	1.5	10.4	19.49	5.92	14.51	235	15	129	146	9	80
BENZENE	3.8	0.5	2.1	3.73	1.78	2.90	44	4	26	28	3	16
TOLUENE	7.7	0.6	3.8	7.52	2.37	5.26	91	6	47	56	4	29
C8+AROM	8.4	0.5	4.6	8.24	1.78	6.35	101	4	57	63	3	36
UNKNOWN	2.5	0.2	1.4	0.00	0.00	0.00	30	2	17	18	1	11
INDIVIDUAL COMPONENTS												
METHANE	16.0	5.5	7.9	15.63	21.30	10.97	229	64	119	142	40	74
ETHYLENE	6.1	0.7	2.6	6.02	2.66	3.63	77	7	34	48	4	21
ETHANE	1.9	1.1	1.2	1.90	4.44	1.72	26	12	18	16	8	11
ACETYLENE	2.8	0.2	0.8	2.75	0.89	1.18	33	2	10	20	1	6
C3 + C3=	4.3	0.4	1.9	4.19	1.48	2.63	54	4	25	33	2	16
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.3	0.2	1.0	0.26	0.59	1.36	3	2	13	2	1	8
B1 + 1B	2.7	0.2	1.2	2.62	0.89	1.72	34	2	16	21	1	10
NC4 +B=1=3	2.3	1.0	6.5	2.29	3.85	9.07	30	10	89	19	6	55
TBUTENE-2	0.3	0.0	0.4	0.33	0.00	0.54	4	0	5	3	0	3
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.3	0.20	0.00	0.36	3	0	3	2	0	2
B=1=2	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
3MB1	0.1	0.0	0.1	0.07	0.00	0.09	1	0	1	1	0	1
ISOPENTANE	2.8	1.1	6.9	2.75	4.44	9.52	36	12	93	23	7	58
PENTENE-1	0.1	0.0	0.1	0.07	0.00	0.18	1	0	2	1	0	1
2MBUT-1	0.2	0.0	0.3	0.20	0.00	0.45	3	0	4	2	0	3
NPENTANE	0.6	0.2	1.3	0.59	0.89	1.81	8	2	18	5	1	11
2MB=1=3	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40R12
DATE RUN: 01 30 78 AIR CONDITIONER USED
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.3	0.0	0.5	0.26	0.00	0.63	3	0	6	2	0	4
CISPENT-2	0.1	0.0	0.2	0.07	0.00	0.27	1	0	3	1	0	2
2MBUT-2	0.6	0.0	1.0	0.59	0.00	1.45	8	0	14	5	0	9
22MBUTANE	1.2	8.9	0.1	1.18	34.32	0.09	15	92	1	10	57	1
CYPENTENE	0.1	0.2	0.1	0.07	0.59	0.09	1	2	1	1	1	1
3MPENTENE	0.1	0.0	0.1	0.07	0.00	0.09	1	0	1	1	0	1
CYPENTANE	0.1	0.0	0.1	0.07	0.00	0.18	1	0	2	1	0	1
23MBUTANE	0.7	0.1	0.8	0.65	0.30	1.18	9	1	11	5	0	7
2MPENTANE	2.1	0.5	2.4	2.03	1.78	3.35	27	5	33	17	3	20
3MPENTANE	1.0	0.2	1.2	0.98	0.89	1.63	13	2	16	8	1	10
HEXENE-1	0.0	0.0	0.1	0.00	0.00	0.09	0	0	1	0	0	1
N HEXANE	0.6	0.2	0.7	0.59	0.59	0.91	8	2	9	5	1	5
TC6=3,=2	0.7	0.0	0.7	0.72	0.00	0.91	9	0	9	6	0	5
CC6=3	0.1	0.0	0.1	0.13	0.00	0.09	2	0	1	1	0	1
2MPENTENE2	0.3	0.0	0.2	0.26	0.00	0.27	3	0	3	2	0	2
MCYP43M2C5	1.0	0.2	0.9	0.98	0.59	1.27	13	2	12	8	1	7
24MPENTANE	1.6	0.2	1.3	1.57	0.89	1.81	21	2	18	13	1	11
BENZENE	3.8	0.5	2.1	3.73	1.78	2.90	44	4	26	28	3	16
CYHEXANE	0.1	0.0	0.1	0.13	0.00	0.09	2	0	1	1	0	1
2MC6+23MC5	4.5	0.5	3.1	4.38	2.07	4.26	57	6	41	36	3	26
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.3	0.2	0.8	1.24	0.59	1.18	16	2	11	10	1	7
224MPENTAN	10.7	1.5	6.5	10.46	5.62	9.07	137	15	88	85	9	54
NHEPTANE	1.2	0.1	0.7	1.18	0.30	1.00	15	1	10	10	0	6
MCYHEXANE	0.6	0.1	0.3	0.59	0.30	0.45	8	1	4	5	0	3
25MHEXANE	1.0	0.1	0.5	0.98	0.30	0.73	13	1	7	8	0	4
24MC6+233M	1.0	0.1	0.6	0.98	0.30	0.82	13	1	8	8	0	5
234MC5	3.2	0.3	1.8	3.14	1.18	2.45	41	3	24	25	2	15
TOLUENE	7.7	0.6	3.8	7.52	2.37	5.26	91	6	47	56	4	29
23MC6+4MC7	1.1	0.1	0.7	1.11	0.30	0.91	15	1	9	9	0	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40812
DATE RUN: 01 30 78 AIR CONDITIONER USED
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.0	0.1	0.6	0.98	0.30	0.82	13	1	8	8	0	5
3MHEPTANE	0.9	0.1	0.5	0.92	0.30	0.71	12	1	7	7	0	4
255MC6	0.7	0.1	0.4	0.72	0.30	0.54	9	1	5	6	0	3
N OCTANE	0.4	0.0	0.3	0.39	0.00	0.36	5	0	4	3	0	2
223MC6	0.1	0.0	0.1	0.07	0.00	0.09	1	0	1	1	0	1
ETCYHEXANE	0.1	0.0	0.1	0.13	0.00	0.09	2	0	1	1	0	1
ET BENZENE	0.9	0.0	0.4	0.92	0.00	0.54	11	0	5	7	0	3
M+PXYLENE	3.3	0.2	1.6	3.20	0.59	2.18	39	1	20	24	1	12
244MC8	0.3	0.0	0.2	0.33	0.00	0.27	4	0	3	3	0	2
O XYLENE	1.3	0.1	0.6	1.24	0.30	0.82	15	1	7	9	0	5
N NONANE	0.2	0.0	0.1	0.20	0.00	0.18	3	0	2	2	0	1
IPRBENZENE	0.1	0.0	0.1	0.13	0.00	0.18	2	0	2	1	0	1
NPRBENZENE	0.1	0.0	0.1	0.13	0.00	0.09	2	0	1	1	0	1
1M3ETBENZ	0.8	0.0	0.5	0.78	0.00	0.63	10	0	6	6	0	4
135MEBENZ	0.3	0.0	0.1	0.26	0.00	0.18	3	0	2	2	0	1
1M2ETBENZ	0.2	0.0	0.1	0.20	0.00	0.18	2	0	2	1	0	1
124MBENZ	0.9	0.2	0.6	0.85	0.59	0.82	10	1	7	6	1	5
SBUBENZENE	0.1	0.1	0.1	0.07	0.30	0.09	1	1	1	0	0	1
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.1	0.0	0.1	0.13	0.00	0.18	2	0	2	1	0	1
INDANE	0.1	0.0	0.1	0.07	0.00	0.09	1	0	1	0	0	1
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MBUBENZENE	0.1	0.0	0.1	0.13	0.00	0.18	2	0	2	1	0	1
1M3PRBENZ	0.1	0.0	0.1	0.13	0.00	0.18	2	0	2	1	0	1
UNKNOWNS	2.5	0.2	1.4	2.42	0.89	1.90	30	2	17	18	1	11

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40901
DATE RUN: 01 21 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7M222946 DRIVER: SWARTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	107.8	13.4	57.6
GC PPMC	96.5	11.8	122.1

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	13.6	5.0	10.9	14.10	42.67	8.93	191	77	62	119	48	38
SATURATES	39.5	4.3	35.5	40.98	36.67	29.07	497	59	181	309	37	112
OLEFINS	13.7	0.8	9.9	14.17	6.67	8.11	168	11	49	104	7	31
ACETYLENE	3.3	0.0	0.6	3.39	0.00	0.49	37	0	3	23	0	2
NAPTHENES	8.8	0.2	2.1	9.12	1.33	1.72	108	2	10	67	1	6
AROMATICS	15.4	1.5	61.8	15.96	12.67	50.61	177	19	288	110	12	179
BENZENE	3.1	0.4	2.5	3.25	3.33	2.05	36	5	12	22	3	7
TOLUENE	6.7	0.6	4.7	6.98	5.33	3.85	78	8	22	48	5	14
C8+AROM	5.5	0.5	54.6	5.74	4.00	44.72	65	6	259	40	4	161
UNKNOWN	2.2	0.0	1.3	0.00	0.00	0.00	26	0	6	16	0	4
INDIVIDUAL COMPONENTS												
METHANE	13.6	5.0	10.9	14.10	42.67	8.93	191	77	62	119	48	38
ETHYLENE	4.6	0.4	2.7	4.77	3.33	2.21	56	5	13	35	3	8
ETHANE	1.5	0.7	1.7	1.52	6.00	1.39	19	10	9	12	6	6
ACETYLENE	3.3	0.0	0.6	3.39	0.00	0.49	37	0	3	23	0	2
C3 + C3=	3.7	0.2	2.1	3.87	2.00	1.72	46	3	10	28	2	6
C=C=C	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.4	0.1	0.8	0.41	0.67	0.66	5	1	4	3	1	3
B1 + IB	2.5	0.2	1.5	2.56	1.33	1.23	30	2	7	19	1	5
NC4 +B=1=3	2.1	0.6	3.8	2.14	4.67	3.11	26	8	20	16	5	12
TBUTENE-2	0.3	0.0	0.3	0.35	0.00	0.25	4	0	1	3	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.3	0.0	0.3	0.28	0.00	0.25	3	0	1	2	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.1	0.07	0.00	0.08	1	0	0	1	0	0
ISOPENTANE	2.9	0.6	5.6	2.97	4.67	4.59	36	8	29	22	5	18
PENTENE-1	0.1	0.0	0.1	0.07	0.00	0.08	1	0	0	1	0	0
2MBUT-1	0.3	0.0	0.3	0.28	0.00	0.25	3	0	1	2	0	1
NPENTANE	0.1	0.1	0.1	0.07	0.67	0.08	1	1	1	1	1	0
2MB=1=3	0.2	0.0	0.0	0.21	0.00	0.00	2	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40901
DATE RUN: 01 21 76
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7M222946 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.3	0.0	0.4	0.28	0.00	0.33	3	0	2	2	0	1
CISPENT-2	0.1	0.0	0.2	0.14	0.00	0.16	2	0	1	1	0	1
2MBUT-2	0.1	0.0	0.9	0.07	0.00	0.74	1	0	4	1	0	3
22MBUTANE	1.4	1.1	0.1	1.45	9.33	0.08	18	15	1	11	9	0
CYPENTENE	0.1	0.0	0.1	0.07	0.00	0.08	1	0	0	0	0	0
3MPENTENE	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
CYPENTANE	7.3	0.2	0.6	7.60	1.33	0.49	90	2	3	56	1	2
23MBUTANE	1.3	0.1	1.2	1.38	0.67	0.98	17	1	6	10	1	4
2MPENTANE	1.7	0.2	2.1	1.80	1.33	1.72	22	2	11	14	1	7
3MPENTANE	1.0	0.1	1.2	1.04	0.67	0.98	13	1	6	8	1	4
HEXENE-1	0.2	0.0	0.1	0.21	0.00	0.08	2	0	0	2	0	0
N HEXANE	0.6	0.0	0.6	0.62	0.00	0.49	8	0	3	5	0	2
TC6=3,=2	0.5	0.0	0.5	0.55	0.00	0.41	7	0	2	4	0	2
CC6=3	0.1	0.0	0.1	0.07	0.00	0.08	1	0	0	1	0	0
2MPENTENE2	0.2	0.0	0.2	0.21	0.00	0.16	2	0	1	2	0	1
MCYP43M2C5	0.7	0.0	0.9	0.76	0.00	0.74	9	0	4	6	0	3
24MPENTANE	1.6	0.1	1.4	1.66	0.67	1.15	20	1	7	12	1	4
BENZENE	3.1	0.4	2.5	3.25	3.33	2.05	36	5	12	22	3	7
CYHEXANE	0.1	0.0	0.1	0.14	0.00	0.08	2	0	0	1	0	0
2MC6+23MC5	4.5	0.2	3.2	4.70	1.33	2.62	57	2	16	35	1	10
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.2	0.0	0.8	1.24	0.00	0.66	15	0	4	9	0	3
224MPENTAN	8.6	0.5	6.2	8.92	4.00	5.08	107	6	31	67	4	19
NHEPTANE	0.9	0.0	0.6	0.97	0.00	0.49	12	0	3	7	0	2
MCYHEXANE	0.5	0.0	0.4	0.48	0.00	0.33	6	0	2	4	0	1
25MHEXANE	1.2	0.0	0.8	1.24	0.00	0.66	15	0	4	9	0	3
24MC6+233M	1.1	0.1	0.5	1.11	0.67	0.41	13	1	3	8	1	2
234MC5	3.5	0.1	2.0	3.59	0.67	1.64	43	1	10	27	1	6
TOLUENE	6.7	0.6	4.7	6.98	5.33	3.85	78	8	22	48	5	14
23MC6+4MC7	0.9	0.0	0.6	0.97	0.00	0.49	12	0	3	7	0	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60901
DATE RUN: 01 21 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7H222946 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	0.8	0.0	0.5	0.83	0.00	0.41	10	0	3	6	0	2
3MHEPTANE	0.7	0.0	0.5	0.69	0.00	0.41	8	0	3	5	0	2
255MC6	0.9	0.0	0.6	0.97	0.00	0.49	12	0	3	7	0	2
N OCTANE	0.3	0.0	0.2	0.28	0.00	0.16	3	0	1	2	0	1
223MC6	0.1	0.0	0.1	0.14	0.00	0.08	2	0	1	1	0	0
ETCYHEXANE	0.1	0.0	0.1	0.14	0.00	0.08	2	0	0	1	0	0
ET BENZENE	0.8	0.0	0.4	0.83	0.00	0.33	9	0	2	6	0	1
M+PXYLENE	2.5	0.2	1.8	2.56	2.00	1.47	29	3	8	18	2	5
2+4MC8	0.2	0.1	0.2	0.21	0.67	0.16	2	1	1	2	1	1
O XYLENE	0.7	0.0	0.7	0.76	0.00	0.57	9	0	3	5	0	2
N NONANE	0.1	0.0	0.1	0.07	0.00	0.08	1	0	1	1	0	0
IPRBENZENE	0.1	0.0	0.1	0.14	0.00	0.08	2	0	0	1	0	0
NPRBENZENE	0.1	0.0	0.1	0.07	0.00	0.08	1	0	0	0	0	0
1M3ETBENZ	0.5	0.1	0.6	0.48	0.67	0.49	5	1	3	3	1	2
135MEBENZ	0.1	0.0	0.2	0.14	0.00	0.16	2	0	1	1	0	1
1M2ETBENZ	0.1	0.0	0.2	0.14	0.00	0.16	2	0	1	1	0	1
124MBENZ	0.5	0.2	0.6	0.55	1.33	0.66	6	2	4	4	1	2
SBUBENZENE	0.0	0.0	0.1	0.00	0.00	0.08	0	0	0	0	0	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.1	0.0	0.1	0.07	0.00	0.08	1	0	0	0	0	0
INDANE	0.0	0.0	49.5	0.00	0.00	40.54	0	0	230	0	0	143
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1M3PRBENZ	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
UNKNOWNS	2.2	0.0	1.3	2.28	0.00	1.06	26	0	6	16	0	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40902
DATE RUN: 01 22 76
CAR: 1974 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: SWARTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	93.0	11.6	48.5
GC PPMC	60.9	12.9	46.5

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	12.2	4.3	9.3	20.05	33.15	20.00	235	47	116	146	29	72
SATURATES	21.5	7.6	21.0	35.37	58.56	45.16	371	75	235	231	46	146
OLEFINS	12.3	0.4	7.1	20.16	2.76	15.31	207	3	78	128	2	48
ACETYLENE	1.6	0.0	0.6	2.65	0.00	1.25	25	0	6	16	0	4
NAPTHENES	1.3	0.1	0.7	2.07	1.10	1.41	21	1	7	13	1	4
AROMATICS	10.2	0.4	7.7	16.71	3.31	16.56	161	4	79	100	2	49
BENZENE	2.6	0.1	1.9	4.26	1.10	4.06	41	1	19	25	1	12
TOLUENE	4.1	0.2	3.1	6.68	1.66	6.56	64	2	31	40	1	19
C8+AROM	3.5	0.1	2.8	5.76	0.55	5.94	56	1	29	35	0	18
UNKNOWN	1.8	0.1	0.1	0.00	0.00	0.00	29	1	2	18	1	1
INDIVIDUAL COMPONENTS												
METHANE	12.2	4.3	9.3	20.05	33.15	20.00	235	47	116	146	29	72
ETHYLENE	4.8	0.2	2.8	7.83	1.66	6.09	80	2	31	50	1	19
ETHANE	1.6	0.7	1.4	2.65	5.52	2.97	29	7	16	18	5	10
ACETYLENE	1.6	0.0	0.6	2.65	0.00	1.25	25	0	6	16	0	4
C3 + C3=	3.4	0.1	1.9	5.65	0.55	4.06	58	1	21	36	0	13
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.2	0.1	0.4	0.35	0.55	0.94	4	1	5	2	0	3
B1 + IB	2.0	0.1	1.1	3.34	0.55	2.34	34	1	12	21	0	7
NC4 +B=1=3	1.8	0.5	2.4	2.88	3.87	5.16	31	5	27	19	3	17
TBUTENE-2	0.3	0.0	0.1	0.46	0.00	0.31	5	0	2	3	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.1	0.35	0.00	0.31	4	0	2	2	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOPENTANE	2.4	0.4	3.1	3.92	3.31	6.56	41	4	34	26	3	21
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.2	0.0	0.1	0.35	0.00	0.16	4	0	1	2	0	0
NPENTANE	0.6	0.1	0.6	0.92	0.55	1.25	10	1	7	6	0	4
2MB=1=3	0.1	0.0	0.1	0.17	0.00	0.31	1	0	2	1	0	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40902
DATE RUN: 01 22 78
CAR: 1974 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT-2	0.2	0.0	0.5	0.35	0.00	1.09	4	0	6	2	0	3
CISPENT-2	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.5	0.0	0.0	0.81	0.00	0.00	8	0	0	5	0	0
22MBUTANE	0.1	4.1	0.0	0.12	31.49	0.00	1	40	0	1	25	0
CYPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.2	0.0	0.1	0.35	0.00	0.16	4	0	1	2	0	0
23MBUTANE	0.7	0.8	0.9	1.15	6.06	2.03	12	8	11	8	5	7
2MPENTANE	1.1	0.1	1.2	1.84	1.10	2.50	19	1	13	12	1	8
3MPENTANE	0.6	0.1	0.7	1.04	0.55	1.41	11	1	7	7	0	5
HEXENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
N HEXANE	0.4	0.0	0.3	0.58	0.00	0.63	6	0	3	4	0	2
TC6=3,=2	0.2	0.0	0.1	0.35	0.00	0.31	4	0	2	2	0	1
CC6=3	0.1	0.0	0.1	0.23	0.00	0.16	2	0	1	1	0	0
2MPENTENE2	0.1	0.0	0.1	0.23	0.00	0.16	2	0	1	1	0	0
MCYP43M2C5	0.5	0.0	0.4	0.81	0.00	0.94	8	0	5	5	0	3
24MPENTANE	0.8	0.0	0.7	1.38	0.00	1.56	14	0	8	9	0	5
BENZENE	2.6	0.1	1.9	4.26	1.10	4.06	41	1	19	25	1	12
CYHEXANE	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
2MC6+23MC5	2.1	0.1	1.7	3.46	1.10	3.75	36	1	19	22	1	12
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.6	0.0	0.4	0.92	0.00	0.94	10	0	5	6	0	3
224MPENTAN	4.1	0.4	3.6	6.80	3.31	7.81	71	4	40	44	3	25
NHEPTANE	0.4	0.0	0.3	0.69	0.00	0.63	7	0	3	4	0	2
MCYHEXANE	0.2	0.0	0.1	0.35	0.00	0.31	4	0	2	2	0	1
25MHEXANE	0.6	0.0	0.4	0.92	0.00	0.94	10	0	5	6	0	3
24MC6+233M	0.4	0.1	0.4	0.69	0.55	0.78	7	1	4	4	0	3
234MC5	1.3	0.1	1.0	2.07	0.55	2.19	22	1	11	13	0	7
TOLUENE	4.1	0.2	3.1	6.68	1.66	6.56	64	2	31	40	1	19
23MC6+4MC7	0.4	0.0	0.3	0.69	0.00	0.63	7	0	3	4	0	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40902
DATE RUN: 01 22 78
CAR: 1974 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
3&4MHEXANE	0.3	0.0	0.3	0.46	0.00	0.63	5	0	3	3	0	2
3MHEPTANE	0.3	0.0	0.3	0.46	0.00	0.63	5	0	3	3	0	2
255MC6	0.4	0.0	0.4	0.69	0.00	0.78	7	0	4	4	0	3
N OCTANE	0.1	0.0	0.1	0.23	0.00	0.16	2	0	1	1	0	1
223MC6	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.3	0.1	0.0	0.46	1.10	0.00	5	1	0	3	1	0
ET BENZENE	0.4	0.0	0.3	0.69	0.00	0.63	7	0	3	4	0	2
M+PXYLENE	1.5	0.1	1.2	2.42	0.55	2.50	23	1	12	15	0	7
244MC6	0.1	0.0	0.1	0.23	0.00	0.31	2	0	2	1	0	1
O XYLENE	0.6	0.0	0.4	0.92	0.00	0.78	9	0	4	6	0	2
N NONANE	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
IPRBENZENE	0.1	0.0	0.1	0.12	0.00	0.16	1	0	1	1	0	0
NPRBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1M3ETBENZ	0.4	0.0	0.3	0.58	0.00	0.63	6	0	3	3	0	2
135MEBENZ	0.1	0.0	0.1	0.23	0.00	0.16	2	0	1	1	0	0
1M2ETBENZ	0.1	0.0	0.1	0.12	0.00	0.16	1	0	1	1	0	0
124MBENZ	0.3	0.0	0.4	0.46	0.00	0.78	4	0	4	3	0	2
SBUBENZENE	0.1	0.0	0.1	0.23	0.00	0.16	2	0	1	1	0	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1M3PRBENZ	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
UNKNOWNS	1.8	0.1	0.1	3.00	1.10	0.31	29	1	2	18	1	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40911
DATE RUN: 01 27 78 AIR CONDITIONER USED
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	114.3	30.7	102.0
GC PPMC	91.7	24.9	80.1

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	18.0	7.8	13.1	19.64	31.14	16.32	267	135	199	166	84	124
SATURATES	31.3	10.3	40.3	34.10	41.32	50.29	416	161	549	258	100	341
OLEFINS	17.7	2.6	13.3	19.27	10.48	16.65	229	40	177	143	25	110
ACETYLENE	3.3	0.3	0.8	3.56	1.20	1.00	39	4	10	24	3	6
NAPTHENES	1.4	0.2	1.3	1.56	0.90	1.67	19	3	18	12	2	11
AROMATICS	17.8	3.4	9.5	19.42	13.77	11.88	217	49	119	135	31	74
BENZENE	4.2	1.1	2.7	4.60	4.49	3.35	51	16	33	32	10	21
TOLUENE	6.3	1.0	4.0	6.82	4.19	4.94	76	15	49	47	9	31
C8+AROM	7.3	1.3	2.9	8.01	5.09	3.60	91	18	37	57	11	23
UNKNOWN	2.2	0.3	1.7	0.00	0.00	0.00	28	4	22	17	3	14
INDIVIDUAL COMPONENTS												
METHANE	18.0	7.8	13.1	19.64	31.14	16.32	267	135	199	166	84	124
ETHYLENE	6.5	1.0	4.6	7.12	3.89	5.69	85	15	61	53	9	38
ETHANE	1.8	1.3	1.3	2.00	5.39	1.59	26	22	18	16	14	11
ACETYLENE	3.3	0.3	0.8	3.56	1.20	1.00	39	4	10	24	3	6
C3 + C3=	5.0	1.2	2.7	5.49	4.79	3.35	65	18	36	41	11	22
C=C=C	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.3	0.1	1.2	0.30	0.60	1.51	4	2	17	2	1	10
B1 + IB	2.9	0.4	1.7	3.19	1.50	2.09	38	6	22	24	4	14
NC4 +B=1=3	2.3	1.2	7.7	2.52	4.79	9.62	31	19	106	19	12	66
TBUTENE-2	0.3	0.0	0.5	0.37	0.00	0.59	4	0	6	3	0	4
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.3	0.0	0.4	0.30	0.00	0.50	4	0	5	2	0	3
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.1	0.07	0.00	0.08	1	0	1	1	0	1
ISOPENTANE	2.8	1.3	7.6	3.04	5.39	9.54	37	21	105	23	13	65
PENTLNE-1	0.1	0.0	0.1	0.07	0.00	0.17	1	0	2	1	0	1
2MBUT-1	0.3	0.0	0.4	0.30	0.00	0.50	4	0	5	2	0	3
NPENTANE	0.7	0.2	1.4	0.74	0.90	1.76	9	4	19	6	2	12
2MB=1=3	0.2	0.0	0.1	0.22	0.00	0.08	3	0	1	2	0	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40911
DATE RUN: 01 27 78 AIR CONDITIONER USED
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: WARD FUEL: SUNNER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.3	0.0	0.5	0.37	0.00	0.67	4	0	7	3	0	4
CISPENT-2	0.1	0.0	0.3	0.15	0.00	0.33	2	0	4	1	0	2
2MBUT-2	0.6	0.1	1.1	0.67	0.30	1.42	8	1	15	5	1	9
22MBUTANE	0.3	0.7	0.1	0.30	2.69	0.17	4	10	2	2	7	1
CYPENTENE	0.1	0.0	0.1	0.07	0.00	0.08	1	0	1	1	0	1
3MPLNTENE	0.1	0.0	0.1	0.07	0.00	0.08	1	0	1	1	0	1
CYPENTANE	0.1	0.0	0.1	0.15	0.00	0.17	2	0	2	1	0	1
23MBUTANE	0.8	0.1	1.1	0.89	0.60	1.34	11	2	15	7	1	9
2MPLNTANE	1.5	0.4	2.1	1.63	1.80	2.68	20	7	29	12	4	18
3MPENTANE	0.8	0.2	1.2	0.89	0.90	1.51	11	3	16	7	2	10
HEXENE-1	0.1	0.0	0.1	0.07	0.00	0.17	1	0	2	1	0	1
N HEXANE	0.5	0.1	0.7	0.52	0.60	0.84	6	2	9	4	1	6
TC6=3.=2	0.5	0.0	0.4	0.52	0.00	0.50	6	0	5	4	0	3
CC6=3	0.0	0.0	0.1	0.00	0.00	0.08	0	0	1	0	0	1
2MPENTENE2	0.1	0.0	0.2	0.15	0.00	0.25	2	0	3	1	0	2
MCYP43M2C5	0.7	0.1	0.8	0.82	0.60	1.00	10	2	11	6	1	7
24MPENTANE	1.2	0.3	1.2	1.33	1.20	1.51	16	5	16	10	3	10
BENZENE	4.2	1.1	2.7	4.60	4.49	3.35	51	16	33	32	10	21
CYHEXANE	0.1	0.0	0.1	0.07	0.00	0.08	1	0	1	1	0	1
2MC6+23MC5	3.0	0.7	2.7	3.26	2.69	3.43	40	10	37	25	6	23
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.8	0.1	0.7	0.89	0.60	0.92	11	2	10	7	1	6
224MPENTAN	6.8	1.9	5.9	7.41	7.78	7.36	90	30	80	56	19	50
NMEPTANE	0.7	0.1	0.6	0.82	0.30	0.75	10	1	8	6	1	5
MCYHEXANE	0.3	0.1	0.3	0.37	0.30	0.33	4	1	4	3	1	2
25MHEXANE	0.6	0.1	0.4	0.67	0.60	0.50	8	2	5	5	1	3
24MC6+233M	0.7	0.1	0.5	0.74	0.60	0.67	9	2	7	6	1	5
234MC5	2.1	0.4	1.5	2.30	1.50	1.84	28	6	20	17	4	12
TOLUENE	6.3	1.0	4.0	6.82	4.19	4.94	76	15	49	47	9	31
23MC6+4MC7	0.7	0.1	0.5	0.82	0.60	0.67	10	2	7	6	1	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40911
DATE RUN: 01 27 78 AIR CONDITIONER USED
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	0.7	0.1	0.5	0.74	0.30	0.59	9	1	6	6	1	4
3MHEPTANE	0.7	0.1	0.5	0.74	0.30	0.59	9	1	6	6	1	4
255MC6	0.6	0.1	0.3	0.67	0.60	0.42	8	2	5	5	1	3
N OCTANE	0.3	0.1	0.2	0.30	0.30	0.25	4	1	3	2	1	2
223MC6	0.1	0.0	0.1	0.07	0.00	0.08	1	0	1	1	0	1
ETCYHEXANE	0.1	0.0	0.1	0.15	0.00	0.08	2	0	1	1	0	1
ET BENZENE	0.8	0.1	0.3	0.89	0.30	0.42	10	1	4	6	1	3
M+PXYLENE	3.1	0.4	0.9	3.34	1.80	1.17	38	6	12	23	4	7
2+4MC8	0.3	0.1	0.1	0.30	0.30	0.08	4	1	1	2	1	1
O XYLENE	1.1	0.1	0.5	1.19	0.60	0.67	13	2	7	8	1	4
N NONANE	0.2	0.0	0.1	0.22	0.00	0.08	3	0	1	2	0	1
IPRBENZENE	0.1	0.0	0.1	0.15	0.00	0.08	2	0	1	1	0	1
NPRBENZENE	0.1	0.0	0.1	0.15	0.00	0.08	2	0	1	1	0	1
1M3ETBENZ	0.7	0.1	0.3	0.82	0.30	0.42	9	1	4	6	1	3
135MEBENZ	0.3	0.1	0.1	0.30	0.30	0.08	3	1	1	2	1	1
1M2ETBENZ	0.2	0.1	0.1	0.22	0.30	0.17	3	1	2	2	1	1
124MBENZ	0.7	0.3	0.4	0.82	1.20	0.50	9	4	5	6	3	3
SBUBENZENE	0.1	0.1	0.0	0.07	0.30	0.00	1	1	0	1	1	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1M3PRBENZ	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
UNKNOWNS	2.2	0.3	1.7	2.45	1.20	2.18	28	4	22	17	3	14

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40912
DATE RUN: 0 0 AIR CONDITIONER USED
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	170.5	19.7	69.6
GC PPMC	150.9	35.0	60.0

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	27.2	6.5	11.7	18.05	18.67	19.52	396	51	166	246	32	103
SATURATES	47.1	23.1	24.5	31.23	66.06	40.88	614	163	311	381	101	193
OLEFINS	36.4	1.9	9.6	24.09	5.42	15.94	462	13	118	287	8	74
ACETYLENE	6.4	0.1	0.9	4.23	0.40	1.50	75	1	10	47	1	6
NAPTHENES	2.2	0.2	0.8	1.45	0.60	1.39	28	1	10	17	1	6
AROMATICS	26.8	3.0	11.2	17.73	8.43	18.59	320	19	130	199	12	81
BENZENE	6.5	0.8	2.8	4.32	2.21	4.73	77	5	33	48	3	20
TOLUENE	8.8	1.0	3.5	5.86	2.81	5.89	106	6	41	66	4	26
C8+ARUM	11.4	1.2	4.8	7.55	3.41	7.97	138	8	57	86	5	35
UNKNOWN	4.9	0.1	1.3	0.00	0.00	0.00	59	1	16	37	1	10
INDIVIDUAL COMPONENTS												
METHANE	27.2	6.5	11.7	18.05	18.67	19.52	396	51	166	246	32	103
ETHYLENE	15.0	1.0	3.7	9.91	2.81	6.12	190	7	45	118	4	28
ETHANE	2.7	1.1	1.7	1.77	3.21	2.77	36	8	22	23	5	14
ACETYLENE	6.4	0.1	0.9	4.23	0.40	1.50	75	1	10	47	1	6
C3 + C3=	9.9	0.6	2.6	6.59	1.61	4.27	127	4	32	79	2	20
C=C=C	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.4	0.1	0.5	0.27	0.40	0.81	5	1	6	3	1	4
B1 + IB	5.1	0.3	1.5	3.36	0.80	2.54	65	2	19	40	1	12
NC4 +B=1=3	4.3	1.1	3.5	2.82	3.21	5.77	56	8	44	35	5	28
TBUTENE-2	0.8	0.0	0.2	0.55	0.00	0.35	10	0	3	7	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.6	0.0	0.1	0.41	0.00	0.23	8	0	2	5	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.1	0.14	0.00	0.12	3	0	1	2	0	1
ISOPENTANE	4.7	1.2	3.7	3.09	3.41	6.12	61	8	47	38	5	29
PENTENE-1	0.2	0.0	0.1	0.14	0.00	0.12	3	0	1	2	0	1
2MBUT-1	0.5	0.0	0.1	0.32	0.00	0.23	6	0	2	4	0	1
NPENTANE	1.0	0.2	0.7	0.68	0.60	1.15	13	1	9	8	1	5
2MB=1=3	0.3	0.0	0.0	0.23	0.00	0.00	4	0	0	3	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40912
DATE RUN: 0 0 AIR CONDITIONER USED
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.5	0.0	0.1	0.36	0.00	0.23	7	0	2	4	0	1
CISPENT-2	0.2	0.0	0.1	0.14	0.00	0.12	3	0	1	2	0	1
2MBUT-2	1.2	0.1	0.6	0.77	0.20	0.92	15	0	7	9	0	4
22MBUTANE	0.5	14.6	0.0	0.32	41.77	0.00	6	103	0	4	64	0
CYPENTENE	0.1	0.0	0.1	0.09	0.00	0.12	2	0	1	1	0	1
3MPENTENE	0.1	0.0	0.1	0.09	0.00	0.12	2	0	1	1	0	1
CYPENTANE	0.2	0.0	0.0	0.14	0.00	0.00	3	0	0	2	0	0
23MBUTANE	1.0	0.2	0.5	0.64	0.60	0.81	13	1	6	8	1	4
2MPENTANE	2.3	0.5	1.3	1.55	1.41	2.19	30	3	17	19	2	10
3MPENTANE	1.4	0.2	0.7	0.91	0.60	1.15	18	1	9	11	1	5
HEXENE-1	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
N HEXANE	0.8	0.1	0.3	0.50	0.20	0.58	10	0	4	6	0	3
TC6=3,=2	1.0	0.0	0.2	0.64	0.00	0.35	12	0	3	8	0	2
CC6=3	0.1	0.0	0.0	0.09	0.00	0.00	2	0	0	1	0	0
2MPENTENE2	0.3	0.0	0.1	0.18	0.00	0.12	3	0	1	2	0	1
MCYP43M2C5	1.2	0.1	0.5	0.77	0.40	0.81	15	1	6	9	1	4
24MPENTANE	1.9	0.2	0.8	1.23	0.60	1.27	24	1	10	15	1	6
BENZENE	6.5	0.8	2.8	4.32	2.21	4.73	77	5	33	48	3	20
CYHEXANE	0.1	0.0	0.1	0.09	0.00	0.12	2	0	1	1	0	1
2MC6+23MC5	4.3	0.6	1.9	2.86	1.61	3.12	56	4	24	35	2	15
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.2	0.1	0.6	0.82	0.40	0.92	16	1	7	10	1	4
224MPENTAN	9.8	1.8	4.4	6.50	5.02	7.27	127	12	55	79	8	34
NHEPTANE	1.1	0.1	0.3	0.73	0.20	0.58	14	0	4	9	0	3
MCYHEXANE	0.5	0.1	0.2	0.36	0.20	0.35	7	0	3	4	0	2
25MHEXANE	0.9	0.1	0.3	0.59	0.20	0.58	12	0	4	7	0	3
24MC6+233M	0.9	0.1	0.4	0.59	0.40	0.69	12	1	5	7	1	3
234MC5	3.2	0.4	1.1	2.14	1.00	1.85	42	2	14	26	2	9
TOLUENE	8.8	1.0	3.5	5.86	2.81	5.89	106	6	41	66	4	26
23MC6+4MC7	1.0	0.1	0.5	0.68	0.40	0.81	13	1	6	8	1	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 40912
DATE RUN: 0 0 AIR CONDITIONER USED
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: MYEK FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	1.0	0.1	0.4	0.64	0.20	0.69	12	0	5	8	0	3
3MHEPTANE	0.9	0.1	0.3	0.59	0.20	0.58	12	0	4	7	0	3
255MC6	0.8	0.1	0.3	0.50	0.20	0.46	10	0	3	6	0	2
N OCTANE	0.4	0.1	0.1	0.27	0.20	0.23	5	0	2	3	0	1
223MC6	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.1	0.0	0.1	0.09	0.00	0.12	2	0	1	1	0	1
ET BENZENE	1.4	0.1	0.4	0.91	0.20	0.69	17	0	5	10	0	3
M+PXYLENE	4.5	0.4	1.7	3.00	1.00	2.77	54	2	19	34	1	12
244MC8	0.5	0.0	0.1	0.32	0.00	0.23	6	0	2	4	0	1
O XYLENE	1.6	0.1	0.7	1.09	0.40	1.15	20	1	8	12	1	5
N NONANE	0.3	0.0	0.1	0.18	0.00	0.23	4	0	2	2	0	1
IPRBENZENE	0.2	0.0	0.1	0.14	0.00	0.12	2	0	1	2	0	1
NPRBENZENE	0.1	0.0	0.1	0.09	0.00	0.12	2	0	1	1	0	1
1M3ETBENZ	1.2	0.1	0.5	0.77	0.20	0.81	14	0	6	9	0	4
135MEBENZ	0.4	0.1	0.1	0.27	0.20	0.23	5	0	2	3	0	1
1M2ETBENZ	0.3	0.0	0.1	0.18	0.00	0.23	3	0	2	2	0	1
124MBENZ	1.2	0.3	0.6	0.77	0.80	1.04	14	2	7	9	1	5
SBUHENZENE	0.1	0.0	0.1	0.05	0.00	0.12	1	0	1	1	0	1
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.1	0.1	0.1	0.09	0.20	0.23	2	0	2	1	0	1
INDANE	0.1	0.0	0.1	0.05	0.00	0.12	1	0	1	1	0	0
13EHBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.1	0.1	0.09	0.20	0.23	2	0	2	1	0	1
1M3PRBENZ	0.1	0.1	0.1	0.05	0.20	0.12	1	0	1	1	0	1
UNKNOWNS	4.9	0.1	1.3	3.23	0.40	2.19	59	1	16	37	1	10

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 41101
DATE RUN: 01 23 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	69.2	19.2	125.6
GC PPMC	75.9	11.6	117.4

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	18.3	2.2	12.8	24.10	18.66	10.88	255	33	167	159	21	104
SATURATES	25.7	7.3	67.0	33.88	62.92	57.07	321	101	785	200	63	488
OLEFINS	13.7	0.2	16.1	18.12	2.13	13.67	168	3	184	104	2	114
ACETYLENE	3.2	0.0	0.7	4.25	0.00	0.58	37	0	7	23	0	5
NAPTHENES	1.1	0.9	2.5	1.48	8.00	2.16	14	13	29	9	8	18
AROMATICS	12.7	0.8	14.8	16.69	7.22	12.57	145	11	159	90	7	99
BENZENE	3.8	0.1	3.5	5.04	0.53	3.01	43	1	38	27	0	23
TOLUENE	4.7	0.1	5.6	6.22	1.07	4.80	54	2	61	34	1	38
C8+AROM	4.1	0.7	5.6	5.43	5.62	4.75	48	8	61	30	5	38
UNKNOWN	1.1	0.1	3.6	0.00	0.00	0.00	13	2	39	8	1	24
INDIVIDUAL COMPONENTS												
METHANE	18.3	2.2	12.8	24.10	18.66	10.88	255	33	167	159	21	104
ETHYLENE	5.9	0.1	3.9	7.80	0.53	3.33	72	1	45	45	1	28
ETHANE	1.8	0.1	1.5	2.37	1.07	1.27	24	2	18	15	1	11
ACETYLENE	3.2	0.0	0.7	4.25	0.00	0.58	37	0	7	23	0	5
C3 + C3=	3.7	0.2	2.4	4.94	1.60	2.06	46	3	28	28	2	17
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.4	0.2	2.0	0.59	2.13	1.74	6	3	24	4	2	15
B1 + IB	2.3	0.0	1.5	3.06	0.00	1.32	28	0	18	18	0	11
NC4 +B=1=3	2.9	1.3	11.2	3.85	11.20	9.50	37	18	132	23	11	82
TBUTENE-2	0.0	0.0	0.9	0.04	0.00	0.74	0	0	10	0	0	6
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.6	0.30	0.00	0.53	3	0	7	2	0	4
3=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.1	0.10	0.00	0.11	1	0	1	1	0	1
ISOPENTANE	2.9	0.6	13.0	3.85	4.80	11.09	37	8	153	23	5	95
PENTENE-1	0.0	0.0	0.2	0.00	0.00	0.16	0	0	2	0	0	1
2MBUT-1	0.1	0.0	0.6	0.20	0.00	0.53	2	0	7	1	0	4
NPENTANE	0.6	0.2	2.4	0.79	1.60	2.06	8	3	28	5	2	18
2MB=1=3	0.1	0.0	0.1	0.10	0.00	0.05	1	0	1	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 41101
DATE RUN: 01 23 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.2	0.0	1.1	0.30	0.00	0.90	3	0	12	2	0	7
CISPENT-2	0.0	0.0	0.4	0.00	0.00	0.37	0	0	5	0	0	3
2MBUT-2	0.5	0.0	2.4	0.69	0.00	2.06	6	0	28	4	0	17
22MBUTANE	0.1	4.3	2.1	0.20	37.33	1.80	2	60	25	1	37	15
CYPENTENE	0.0	0.0	0.1	0.00	0.00	0.11	0	0	1	0	0	1
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.9	0.2	0.10	8.00	0.21	1	13	3	1	8	2
23MBUTANE	0.5	0.2	1.6	0.69	2.13	1.37	7	3	19	4	2	12
2MPENTANE	1.3	0.0	3.8	1.78	0.00	3.22	17	0	44	10	0	28
3MPENTANE	0.7	0.0	2.0	0.89	0.00	1.74	8	0	24	5	0	15
HEXENE-1	0.0	0.0	0.1	0.00	0.00	0.11	0	0	1	0	0	1
N HEXANE	0.3	0.0	1.1	0.40	0.00	0.90	4	0	12	2	0	8
TC6=3,=2	0.3	0.0	0.9	0.40	0.00	0.79	4	0	11	2	0	7
CC6=3	0.0	0.0	0.2	0.00	0.00	0.16	0	0	2	0	0	1
2MPENTENE2	0.1	0.0	0.4	0.20	0.00	0.37	2	0	5	1	0	3
MCYP43M2C5	0.6	0.0	1.5	0.79	0.00	1.27	7	0	17	5	0	11
24MPENTANE	0.9	0.0	2.2	1.19	0.00	1.85	11	0	25	7	0	16
BENZENE	3.8	0.1	3.5	5.04	0.53	3.01	43	1	38	27	0	23
CYHEXANE	0.1	0.0	0.1	0.20	0.00	0.11	2	0	1	1	0	1
2MC6+23MC5	2.2	0.1	4.6	2.86	0.53	3.96	27	1	54	17	1	34
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.6	0.0	1.3	0.79	0.00	1.11	7	0	15	5	0	9
224MPENTAN	4.8	0.0	9.1	6.32	0.00	7.76	60	0	106	37	0	66
NHEPTANE	0.4	0.0	1.1	0.59	0.00	0.90	6	0	12	3	0	8
MCYHEXANE	0.2	0.0	0.6	0.30	0.00	0.48	3	0	6	2	0	4
25MHEXANE	0.6	0.1	0.9	0.79	1.07	0.79	7	2	11	5	1	7
24MC6+233M	0.4	0.1	0.7	0.59	1.07	0.63	6	2	9	3	1	5
234MC5	1.4	0.0	2.5	1.88	0.00	2.16	18	0	30	11	0	18
TOLUENE	4.7	0.1	5.6	6.22	1.07	4.80	54	2	61	34	1	38
23MC6+4MC7	0.6	0.0	0.9	0.79	0.00	0.74	7	0	10	5	0	6

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 41101
DATE RUN: 01 23 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	0.5	0.0	0.7	0.69	0.00	0.63	7	0	9	4	0	5
3MHEPTANE	0.4	0.0	0.7	0.59	0.00	0.58	6	0	8	3	0	5
255MC6	0.5	0.0	0.7	0.69	0.00	0.58	7	0	8	4	0	5
N OCTANE	0.1	0.0	0.3	0.20	0.00	0.26	2	0	4	1	0	2
223MC6	0.1	0.0	0.1	0.10	0.00	0.05	1	0	1	1	0	0
ETCYHEXANE	0.1	0.0	0.1	0.10	0.00	0.11	1	0	1	1	0	1
ET BENZENE	0.4	0.0	0.6	0.59	0.37	0.53	5	1	7	3	0	4
M+PXYLENE	1.7	0.2	2.3	2.27	1.87	1.95	20	3	25	12	2	15
244MC8	0.1	0.0	0.2	0.20	0.00	0.21	2	0	3	1	0	2
O XYLENE	0.7	0.1	0.7	0.89	0.75	0.63	8	1	8	5	1	5
N NONANE	0.1	0.0	0.2	0.20	0.00	0.16	2	0	2	1	0	1
IPRBENZENE	0.1	0.0	0.2	0.10	0.00	0.16	1	0	2	1	0	1
NPRBENZENE	0.1	0.0	0.1	0.10	0.00	0.05	1	0	1	1	0	0
1M3ETBENZ	0.4	0.0	0.6	0.59	0.37	0.48	5	1	6	3	0	4
135MEBENZ	0.1	0.0	0.2	0.20	0.37	0.21	2	1	3	1	0	2
1M2ETBENZ	0.1	0.0	0.2	0.20	0.00	0.16	2	0	2	1	0	1
124MBENZ	0.4	0.2	0.6	0.49	1.50	0.48	4	2	6	3	1	4
SBUBENZENE	0.0	0.0	0.1	0.00	0.00	0.05	0	0	1	0	0	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.0	0.0	0.1	0.00	0.37	0.05	0	1	1	0	0	0
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1M3PRBENZ	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
UNKNOWNS	1.7	0.1	3.6	1.48	1.07	3.06	13	2	39	8	1	24

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 41102
DATE RUN: 01 26 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	179.5	30.7	97.8
GC PPMC	150.4	28.7	86.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	15.8	7.9	15.2	10.49	27.52	17.58	225	79	191	140	49	119
SATURATES	68.0	12.8	35.8	45.19	44.47	41.44	869	115	404	540	71	251
OLEFINS	19.5	2.3	14.9	12.96	7.86	17.27	244	20	164	151	12	102
ACETYLENE	2.8	0.3	1.2	1.85	0.98	1.41	32	2	12	20	1	8
NAPTHENES	3.4	0.4	1.4	2.25	1.23	1.65	42	3	16	26	2	10
AROMATICS	32.8	4.3	15.5	21.78	14.99	17.97	384	35	161	239	22	100
BENZENE	4.9	0.8	4.1	3.26	2.95	4.79	57	7	42	35	4	26
TOLUENE	11.2	1.5	5.4	7.45	5.16	6.20	131	12	55	82	8	34
C8+AROM	16.6	2.0	6.0	11.07	6.88	6.99	198	17	63	123	10	39
UNKNOWN	8.2	0.8	2.3	0.00	0.00	0.00	98	7	24	61	4	15
INDIVIDUAL COMPONENTS												
METHANE	15.8	7.9	15.2	10.49	27.52	17.58	225	79	191	140	49	119
ETHYLENE	5.9	0.9	5.6	3.92	3.19	6.44	74	8	61	46	5	38
ETHANE	1.9	1.2	1.8	1.23	4.18	2.04	25	11	21	15	7	13
ACETYLENE	2.8	0.3	1.2	1.85	0.98	1.41	32	2	12	20	1	8
C3 + C3=	4.8	0.9	3.9	3.17	3.19	4.47	60	8	43	37	5	26
C=C=C	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.6	0.3	0.5	0.40	0.98	0.63	8	3	6	5	2	4
B1 + IB	2.9	0.3	2.3	1.94	0.98	2.67	36	2	25	23	2	16
NC4 +B=1=3	4.4	1.6	3.8	2.91	5.65	4.40	57	15	43	35	9	27
TBUTENE-2	0.5	0.0	0.3	0.35	0.00	0.39	7	0	4	4	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.3	0.0	0.3	0.22	0.00	0.31	4	0	3	3	0	2
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.1	0.09	0.00	0.08	2	0	1	1	0	0
ISOPENTANE	6.4	1.8	4.6	4.23	6.14	5.34	82	16	52	51	10	32
PENTENE-1	0.2	0.0	0.1	0.13	0.00	0.08	2	0	1	2	0	0
2MBUT-1	0.5	0.0	0.3	0.35	0.00	0.31	7	0	3	4	0	2
NPENTANE	1.3	0.4	0.9	0.88	1.23	1.10	17	3	11	11	2	7
2MB=1=3	0.2	0.0	0.1	0.13	0.00	0.08	2	0	1	2	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 41102
DATE RUN: 01 26 78
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
TPENT=2		0.7	0.0	0.3		0.44	0.00	0.39		8	0	4		5	0	2
CISPENT-2		0.3	0.0	0.1		0.18	0.00	0.16		3	0	1		2	0	1
2MBUT-2		1.3	0.1	0.8		0.84	0.49	0.94		16	1	9		10	1	6
22MBUTANE		0.3	1.0	0.2		0.22	3.44	0.24		4	9	2		3	6	1
CYPENTENE		0.1	0.0	0.1		0.09	0.00	0.08		2	0	1		1	0	0
3MPENTENE		0.1	0.0	0.1		0.04	0.00	0.08		1	0	1		1	0	0
CYPENTANE		0.1	0.1	0.1		0.09	0.25	0.08		2	1	1		1	0	0
23MBUTANE		1.8	0.2	1.1		1.19	0.74	1.26		23	2	12		14	1	8
2MPENTANE		3.1	0.6	1.8		2.07	1.97	2.12		40	5	21		25	3	13
3MPENTANE		1.8	0.3	1.0		1.19	0.98	1.18		23	3	11		14	2	7
HEXENE-1		0.3	0.0	0.1		0.18	0.00	0.08		3	0	1		2	0	0
N HEXANE		1.1	0.1	0.6		0.71	0.49	0.71		14	1	7		8	1	4
TC6=3,=2		0.8	0.0	0.4		0.53	0.00	0.47		10	0	4		6	0	3
CC6=3		0.1	0.0	0.1		0.09	0.00	0.08		2	0	1		1	0	0
2MPENTENE2		0.3	0.0	0.1		0.22	0.00	0.16		4	0	1		3	0	1
MCYP43M2C5		1.5	0.2	0.8		1.01	0.74	0.94		19	2	9		12	1	6
24MPENTANE		2.5	0.4	1.3		1.63	1.23	1.49		31	3	14		19	2	9
BENZENE		4.9	0.8	4.1		3.26	2.95	4.79		57	7	42		35	4	26
CYHEXANE		0.4	0.0	0.1		0.26	0.00	0.08		5	0	1		3	0	0
2MC6+23MC5		6.6	0.8	3.0		4.41	2.95	3.53		85	8	34		53	5	21
24MHEXANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
3MHEXANE		1.9	0.2	0.9		1.28	0.74	1.02		25	2	10		15	1	6
224MPENTAN		14.3	2.3	6.8		9.52	7.86	7.85		182	20	86		113	13	47
NHEPTANE		1.9	0.1	0.7		1.23	0.49	0.78		24	1	8		15	1	5
MCYHEXANE		0.9	0.1	0.3		0.57	0.25	0.39		11	1	4		7	0	2
25MHEXANE		1.8	0.1	0.6		1.19	0.49	0.71		23	1	7		14	1	4
24MC6+23M		1.9	0.2	0.7		1.23	0.74	0.76		24	2	8		15	1	5
234MC5		5.3	0.5	1.9		3.53	1.72	2.20		67	4	21		42	3	13
TOLUENE		11.2	1.5	5.4		7.45	5.16	6.20		131	12	65		82	8	34
23MC6+4MC7		1.9	0.1	0.7		1.23	0.49	0.78		24	1	8		15	1	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 41102
DATE RUN: 01 26 76
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.7	0.1	0.6	1.15	0.49	0.71	22	1	9	14	1	4
3MHEPTANE	1.6	0.1	0.6	1.06	0.49	0.71	20	1	9	13	1	4
255MC6	1.7	0.1	0.5	1.10	0.49	0.63	21	1	8	13	1	4
N OCTANE	0.7	0.1	0.6	0.49	0.25	0.71	9	1	9	6	0	4
223MC6	0.2	0.0	0.1	0.13	0.00	0.08	3	0	1	2	0	0
ETCYHEXANE	0.5	0.0	0.1	0.31	0.00	0.16	6	0	2	4	0	1
ET BENZENE	1.9	0.1	0.6	1.28	0.49	0.71	23	1	9	14	1	4
M+PXYLENE	6.4	0.6	2.4	4.28	1.97	2.83	76	5	26	47	3	16
244MC8	0.9	0.1	0.3	0.62	0.25	0.31	12	1	4	7	0	2
O XYLENE	2.3	0.2	0.9	1.54	0.74	1.02	27	2	9	17	1	6
N NONANE	0.5	0.0	0.1	0.35	0.00	0.16	7	0	2	4	0	1
IPRBENZENE	0.5	0.1	0.1	0.31	0.25	0.16	6	1	2	3	0	1
NPRBENZENE	0.3	0.0	0.1	0.22	0.00	0.08	4	0	1	2	0	0
1M3ETBENZ	1.7	0.3	0.6	1.10	0.98	0.71	20	2	9	12	1	4
135MEBENZ	0.6	0.1	0.2	0.40	0.25	0.24	7	1	3	4	0	1
1M2ETBENZ	0.6	0.1	0.2	0.40	0.25	0.24	7	1	3	4	0	1
124MBENZ	1.6	0.4	0.7	1.06	1.47	0.78	19	4	7	12	2	4
SBUBENZENE	0.1	0.1	0.1	0.09	0.25	0.08	2	1	1	1	0	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.2	0.1	0.1	0.13	0.25	0.16	2	1	1	1	0	1
INDANE	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.2	0.0	0.0	0.13	0.00	0.00	2	0	0	1	0	0
1M3PRBENZ	0.1	0.0	0.0	0.09	0.00	0.00	2	0	0	1	0	0
UNKNOWNS	8.2	0.8	2.3	5.47	2.95	2.67	98	7	24	61	4	15

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 41111
DATE RUN: 01 24 78 AIR CONDITIONER USED
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: SWARTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION

	BAG1	BAG2	BAG3
FID PPMC	151.6	29.5	140.1
GC PPMC	136.1	25.0	127.7

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	24.3	8.4	17.0	17.87	33.66	13.31	330	129	226	205	80	141
SATURATES	47.1	5.9	68.5	34.58	23.76	53.63	571	81	817	355	50	508
OLEFINS	25.4	7.8	15.7	18.68	31.19	12.30	301	104	183	187	65	114
ACETYLENE	6.3	0.4	1.0	4.61	1.73	0.81	69	5	11	43	3	7
NAPTHENES	2.3	0.2	2.9	1.67	0.74	2.27	27	2	34	17	2	21
AROMATICS	26.1	2.1	19.0	19.19	8.42	14.87	291	26	208	181	16	129
BENZENE	5.3	0.7	4.7	3.90	2.72	3.68	58	8	51	36	5	32
TOLUENE	9.2	0.7	6.5	6.73	2.72	5.09	102	9	71	63	5	44
C8+AROM	11.6	0.7	7.8	8.56	2.97	6.10	132	9	87	82	6	54
UNKNOWN	4.6	0.1	3.6	0.00	0.00	0.00	52	2	40	33	1	25
INDIVIDUAL COMPONENTS												
METHANE	24.3	8.4	17.0	17.87	33.66	13.31	330	129	226	205	80	141
ETHYLENE	9.7	0.6	4.0	7.14	2.23	3.13	115	7	47	72	5	29
ETHANE	2.3	1.0	1.6	1.72	3.96	1.26	30	14	20	18	9	12
ACETYLENE	6.3	0.4	1.0	4.61	1.73	0.81	69	5	11	43	3	7
C3 + C3=	7.1	6.2	2.6	5.22	24.75	2.07	84	83	31	52	51	19
C=C=C	0.0	0.4	0.0	0.00	1.49	0.00	0	5	0	0	3	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.4	0.2	1.8	0.30	0.99	1.41	5	3	22	3	2	14
B1 + IB	3.8	0.2	1.7	2.78	0.74	1.36	45	2	20	28	2	13
NC4 +B=1=3	3.3	1.0	10.1	2.43	3.96	7.91	41	14	122	25	9	76
TBUTENE-2	0.6	0.0	0.7	0.41	0.00	0.55	7	0	8	4	0	5
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.3	0.0	0.5	0.25	0.00	0.40	4	0	6	3	0	4
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.1	0.10	0.00	0.10	2	0	2	1	0	1
ISOPENTANE	3.9	0.7	13.0	2.84	2.97	10.18	47	10	156	29	6	97
PENTENE-1	0.1	0.0	0.2	0.10	0.00	0.15	2	0	2	1	0	1
2MBUT-1	0.3	0.0	0.6	0.25	0.00	0.45	4	0	7	3	0	4
NPENTANE	0.9	0.2	2.3	0.66	0.74	1.81	11	3	28	7	2	17
2MB=1=3	0.3	0.0	0.0	0.20	0.00	0.00	3	0	0	2	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 41111
DATE RUN: 01 24 78 AIR CONDITIONER USED
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.4	0.1	0.9	0.30	0.25	0.71	5	1	11	3	1	7
CISPENT-2	0.1	0.0	0.4	0.10	0.00	0.30	2	0	5	1	0	3
2MBUT-2	1.0	0.4	2.1	0.71	1.73	1.66	11	6	25	7	4	15
22MBUTANE	0.3	0.0	0.1	0.25	0.00	0.10	4	0	2	3	0	1
CYPENTENE	0.1	0.0	0.1	0.10	0.00	0.10	2	0	1	1	0	1
3MPENTENE	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.1	0.1	0.3	0.10	0.25	0.25	2	1	4	1	1	2
23MBUTANE	1.0	0.1	1.8	0.71	0.50	1.41	12	2	22	7	1	13
2MPENTANE	2.2	0.2	4.4	1.62	0.99	3.43	27	3	52	17	2	32
3MPENTANE	1.2	0.1	2.3	0.86	0.50	1.76	14	2	27	9	1	17
HEXENE-1	0.1	0.0	0.3	0.05	0.00	0.20	1	0	3	1	0	2
N HEXANE	0.7	0.1	1.2	0.51	0.25	0.91	8	1	14	5	1	9
TC6=3.=2	0.8	0.0	0.9	0.61	0.00	0.71	10	0	11	6	0	7
CC6=3	0.1	0.0	0.1	0.10	0.00	0.10	2	0	2	1	0	1
2MPENTENE2	0.3	0.0	0.4	0.20	0.00	0.30	3	0	5	2	0	3
MCYP43M2C5	1.1	0.1	1.5	0.81	0.25	1.21	13	1	18	8	1	11
24MPENTANE	1.8	0.1	2.3	1.32	0.50	1.81	22	2	28	13	1	17
BENZENE	5.3	0.7	4.7	3.90	2.72	3.68	58	8	51	36	5	32
CYHEXANE	0.1	0.0	0.3	0.10	0.00	0.25	2	0	4	1	0	2
2MC6+23MC5	4.4	0.4	5.2	3.24	1.49	4.08	53	5	62	33	3	39
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.2	0.1	1.4	0.91	0.50	1.11	15	2	17	9	1	10
224MPENTAN	9.9	0.9	10.2	7.29	3.47	8.01	120	12	121	74	7	75
NHEPTANE	1.1	0.1	1.1	0.81	0.25	0.86	13	1	13	8	1	8
MCYHEXANE	0.6	0.1	0.6	0.41	0.25	0.45	7	1	7	4	1	4
25MHEXANE	1.4	0.1	1.1	1.06	0.50	0.86	17	2	13	11	1	8
24MC6+233M	1.0	0.1	0.9	0.71	0.25	0.71	12	1	11	7	1	7
234MC5	3.7	0.2	3.0	2.73	0.74	2.32	45	3	35	28	2	22
TOLUENE	9.2	0.7	6.5	6.73	2.72	5.09	102	9	71	63	5	44
23MC6+4MC7	1.4	0.1	1.0	1.01	0.25	0.81	17	1	12	10	1	8

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 41111
DATE RUN: 01 24 78 AIR CONDITIONER USED
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.2	0.1	0.9	0.86	0.25	0.71	14	1	11	9	1	7
3MHEPTANE	1.0	0.1	0.8	0.76	0.25	0.66	12	1	10	8	1	6
255MC6	1.1	0.1	0.9	0.81	0.25	0.71	13	1	11	8	1	7
N OCTANE	0.5	0.1	0.4	0.35	0.25	0.30	6	1	5	4	1	3
223MC6	0.1	0.0	0.1	0.05	0.00	0.05	1	0	1	1	0	0
ETCYHEXANE	0.3	0.0	0.1	0.25	0.00	0.10	4	0	2	3	0	1
ET BENZENE	1.7	0.1	0.7	1.27	0.25	0.55	19	1	8	12	0	5
M+PXYLENE	4.9	0.2	3.0	3.59	0.99	2.32	55	3	33	34	2	20
244MC8	0.8	0.0	0.4	0.56	0.00	0.30	9	0	5	6	0	3
O XYLENE	1.7	0.1	1.0	1.27	0.25	0.81	19	1	11	12	0	7
N NONANE	0.3	0.0	0.2	0.20	0.00	0.15	3	0	2	2	0	1
IPRBENZENE	0.2	0.0	0.2	0.15	0.00	0.15	2	0	2	1	0	1
NPRBENZENE	0.1	0.0	0.1	0.10	0.00	0.10	2	0	1	1	0	1
1M3ETBENZ	1.0	0.1	0.8	0.71	0.25	0.60	11	1	9	7	0	5
135MEBENZ	0.3	0.1	0.3	0.25	0.25	0.25	4	1	4	2	0	2
1M2ETBENZ	0.3	0.0	0.3	0.20	0.00	0.25	3	0	4	2	0	2
124MBENZ	1.0	0.1	0.8	0.71	0.50	0.66	11	2	9	7	1	6
SBUBENZENE	0.1	0.1	0.1	0.05	0.25	0.05	1	1	1	0	0	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.1	0.0	0.1	0.10	0.00	0.10	2	0	1	1	0	1
INDANE	0.1	0.0	0.1	0.05	0.00	0.05	1	0	1	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.1	0.05	0.00	0.10	1	0	1	0	0	1
1M3PRBENZ	0.1	0.1	0.1	0.05	0.25	0.10	1	1	1	0	0	1
UNKNOWNS	4.6	0.1	3.6	3.39	0.50	2.82	52	2	40	33	1	25

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 41112
DATE RUN: 0 0 AIR CONDITIONER USED
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: L J WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	171.7	58.2	196.2
GC PPMC	217.8	38.4	155.1

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	40.7	13.9	21.2	18.71	36.20	13.65	396	344	331	246	214	206
SATURATES	79.0	13.2	77.3	36.29	34.40	49.86	686	293	1082	428	182	672
OLEFINS	37.3	4.5	21.7	17.11	11.63	14.01	317	97	297	197	60	184
ACETYLENE	5.0	0.2	1.2	2.30	0.49	0.79	39	4	16	25	2	10
NAPTHENES	3.9	0.9	3.4	1.78	2.46	2.19	33	20	46	21	13	29
AROMATICS	45.3	5.7	25.1	20.82	14.82	16.20	362	116	322	225	72	200
BENZENE	10.7	2.3	6.5	4.92	5.90	4.17	85	45	82	53	28	51
TULUENE	15.1	1.8	8.2	6.94	4.59	5.32	121	36	106	75	22	66
C8+AROM	19.5	1.7	10.4	8.95	4.34	6.72	158	34	136	98	21	84
UNKNOWN	6.5	0.0	5.1	0.00	0.00	0.00	53	0	67	33	0	42
INDIVIDUAL COMPONENTS												
METHANE	40.7	13.9	21.2	18.71	36.20	13.65	396	344	331	246	214	206
ETHYLENE	13.2	1.7	5.6	6.05	4.42	3.59	112	37	76	70	23	47
ETHANE	3.3	0.8	1.4	1.50	2.13	0.93	30	19	21	19	12	13
ACETYLENE	5.0	0.2	1.2	2.30	0.49	0.79	39	4	16	25	2	10
C3 + C3=	10.4	1.4	3.7	4.78	3.77	2.37	89	31	50	55	19	31
C=C=C	0.2	0.0	0.0	0.09	0.00	0.00	2	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.8	0.3	1.7	0.36	0.82	1.08	7	7	24	4	4	15
B1 + IB	6.4	0.7	2.4	2.95	1.60	1.54	55	15	33	34	9	20
NC4 +B=1=3	5.7	1.6	10.8	2.63	4.10	6.47	50	35	142	31	22	88
TBUTENE-2	0.9	0.1	0.9	0.42	0.16	0.57	8	1	12	5	1	8
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.6	0.1	0.6	0.28	0.16	0.40	5	1	8	3	1	5
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	1.7	0.09	0.00	1.08	2	0	23	1	0	14
ISOPENTANE	7.1	1.6	13.4	3.28	4.10	8.62	63	35	188	39	22	117
PENTENE-1	0.2	0.0	0.2	0.09	0.00	0.14	2	0	3	1	0	2
2MBUT-1	0.6	0.1	0.8	0.28	0.16	0.50	5	1	11	3	1	7
NPENTANE	1.6	0.3	2.5	0.75	0.82	1.62	14	7	35	9	4	22
2MB=1=3	0.4	0.0	0.1	0.19	0.00	0.04	3	0	1	2	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 41112
DATE RUN: 0 0 AIR CONDITIONER USED
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: L J WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.7	0.1	1.1	0.33	0.16	0.68	6	1	14	4	1	9
CISPENT-2	0.3	0.0	0.5	0.14	0.00	0.32	3	0	7	2	0	4
2MBUT-2	1.5	0.2	2.2	0.70	0.49	1.44	13	4	30	8	3	19
22MBUTANE	0.6	0.5	0.2	0.28	1.31	0.11	5	11	2	3	7	1
CYPENTENE	0.1	0.0	0.2	0.05	0.00	0.11	1	0	2	1	0	1
3MPENTENE	0.1	0.0	0.1	0.05	0.00	0.04	1	0	1	1	0	0
CYPENTANE	0.3	0.5	0.2	0.14	1.31	0.14	3	11	3	2	7	2
23MBUTANE	2.0	0.4	2.6	0.94	1.15	1.65	18	10	36	11	6	22
2MPENTANE	3.7	0.6	4.5	1.69	1.64	2.91	32	14	63	20	9	39
3MPENTANE	2.0	0.3	2.6	0.94	0.82	1.65	18	7	36	11	4	22
HEXENE-1	0.1	0.0	0.3	0.05	0.00	0.18	1	0	4	1	0	2
N HEXANE	1.2	0.2	1.4	0.56	0.49	0.90	11	4	19	7	3	12
TC6=3,=2	0.8	0.0	0.9	0.38	0.00	0.57	7	0	12	4	0	8
CC6=3	0.1	0.0	0.2	0.05	0.00	0.14	1	0	3	1	0	2
2MPENTENE2	0.3	0.2	0.4	0.14	0.49	0.29	3	4	6	2	3	4
MCYP4JM2C5	1.7	0.3	1.8	0.80	0.66	1.19	15	5	25	9	3	16
24MPENTANE	2.9	0.4	2.8	1.31	1.15	1.80	25	10	39	15	6	24
BENZENE	10.7	2.3	6.5	4.92	5.90	4.17	85	45	82	53	28	51
CYHEXANE	0.3	0.0	0.3	0.14	0.00	0.22	3	0	5	2	0	3
2MC6+23MC5	7.5	1.0	6.2	3.42	2.62	4.02	65	22	87	40	14	54
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.1	0.3	1.7	0.98	0.82	1.11	19	7	24	12	4	15
224MPENTAN	16.6	2.4	12.5	7.64	6.22	8.05	144	53	174	90	33	108
NHEPTANE	1.8	0.2	1.3	0.84	0.49	0.86	16	4	19	10	3	12
MCYHEXANE	1.0	0.1	0.7	0.47	0.33	0.47	9	3	10	5	2	6
25MHEXANE	2.3	0.3	1.6	1.08	0.66	1.01	20	6	22	13	3	13
24MC6+233M	1.6	0.3	1.1	0.75	0.66	0.72	14	6	15	9	3	10
234MC5	5.7	0.6	3.7	2.63	1.64	2.37	49	14	51	31	9	32
TOLUENE	15.1	1.8	8.2	6.94	4.59	5.32	121	36	106	75	22	66
23MC6+4MC7	2.0	0.2	1.3	0.94	0.49	0.83	18	4	18	11	3	11

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 41112
DATE RUN: 0 0 AIR CONDITIONER USED
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: L J WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
3+MHEXANE	1.8	0.2	1.2	0.84	0.49	0.75	16	4	16	10	3	10
3MHEPTANE	1.7	0.2	1.1	0.80	0.49	0.68	15	4	15	9	3	9
255MC6	1.9	0.3	1.2	0.89	0.66	0.75	17	6	16	10	3	10
N OCTANE	0.9	0.1	0.5	0.42	0.33	0.32	8	3	7	5	2	4
223MC6	0.3	0.0	0.1	0.14	0.00	0.07	3	0	2	2	0	1
ETCYHEXANE	0.5	0.1	0.3	0.23	0.16	0.18	4	1	4	3	1	2
ET BENZENE	2.6	0.1	1.1	1.17	0.33	0.72	21	3	14	13	2	9
M+PXYLENE	7.8	0.6	3.8	3.56	1.47	2.48	62	12	50	39	7	31
244MC8	0.9	0.1	0.6	0.42	0.16	0.36	8	1	8	5	1	5
O XYLENE	2.7	0.2	1.3	1.22	0.49	0.86	21	4	17	13	2	11
N NONANE	0.5	0.1	0.3	0.23	0.16	0.22	4	1	5	3	1	3
IPRBENZENE	0.4	0.1	0.3	0.19	0.16	0.18	3	1	4	2	1	2
NPRBENZENE	0.3	0.0	0.2	0.14	0.00	0.11	2	0	2	2	0	1
1M3ETBENZ	1.8	0.1	1.0	0.84	0.16	0.65	15	1	13	9	1	8
135MEBENZ	0.6	0.1	0.4	0.28	0.16	0.25	5	1	5	3	1	3
1M2ETBENZ	0.6	0.1	0.4	0.28	0.16	0.29	5	1	6	3	1	4
124MBENZ	1.8	0.2	1.1	0.84	0.49	0.72	15	4	14	9	2	9
SBUBENZENE	0.1	0.1	0.1	0.05	0.16	0.07	1	1	1	1	1	1
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.2	0.1	0.2	0.09	0.25	0.11	2	2	2	1	1	1
INDANE	0.1	0.0	0.1	0.05	0.00	0.04	1	0	1	1	0	0
13EBENZENE	0.1	0.0	0.1	0.05	0.00	0.04	1	0	1	1	0	0
NBUBENZENE	0.2	0.1	0.2	0.09	0.25	0.11	2	2	2	1	1	1
1M3PRBENZ	0.2	0.1	0.2	0.09	0.25	0.11	2	2	2	1	1	1
UNKNOWNS	6.5	0.0	5.1	3.00	0.00	3.30	53	0	67	33	0	42

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 41113
DATE RUN: 01 31 78 AIR CONDITIONER USED
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: SWARTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	266.2	43.1	178.1
GC PPMC	147.4	45.0	174.1

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	19.1	15.8	28.0	12.99	35.03	16.06	444	229	356	276	142	221
SATURATES	56.2	16.3	81.4	38.10	36.20	46.77	1167	212	927	725	132	576
OLEFINS	29.3	4.8	29.0	19.87	10.76	16.63	594	62	322	369	38	200
ACETYLENE	7.1	0.4	2.3	4.79	0.78	1.32	133	4	24	83	3	15
NAPTHENES	2.5	0.4	3.4	1.72	0.78	1.97	51	4	38	32	3	24
AROMATICS	28.3	6.6	26.7	19.19	14.68	15.36	539	79	279	335	49	174
BENZENE	5.7	2.6	8.5	3.84	5.68	4.87	107	30	88	66	19	54
TOLUENE	9.1	1.9	8.6	6.14	4.31	4.91	173	23	89	107	14	56
C8+AROM	13.6	2.1	9.7	9.21	4.70	5.57	263	26	103	163	16	64
UNKNOWN	4.9	0.8	3.3	0.00	0.00	0.00	96	10	35	60	6	22
INDIVIDUAL COMPONENTS												
METHANE	19.1	15.8	28.0	12.99	35.03	16.06	444	229	356	276	142	221
ETHYLENE	12.3	2.1	10.6	8.32	4.70	6.10	249	27	118	155	17	73
ETHANE	2.2	1.4	2.7	1.50	3.13	1.54	48	19	32	30	12	20
ACETYLENE	7.1	0.4	2.3	4.79	0.78	1.32	133	4	24	83	3	15
C3 + C3=	7.0	1.6	6.5	4.73	3.52	3.73	141	20	72	88	13	45
C=C=C	0.1	0.0	0.0	0.09	0.00	0.00	3	0	0	2	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.5	0.3	1.8	0.34	0.59	1.05	10	3	21	7	2	13
B1 + IB	3.7	0.9	4.0	2.52	1.96	2.28	75	11	44	47	7	27
NC4 +B=1=3	4.3	1.5	12.8	2.89	3.33	7.33	89	20	147	56	12	91
TBUTENE-2	0.7	0.1	1.0	0.49	0.20	0.57	15	1	11	9	1	7
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.5	0.0	0.6	0.37	0.00	0.35	11	0	7	7	0	4
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.2	0.09	0.00	0.09	3	0	2	2	0	1
ISOPENTANE	5.3	1.7	14.8	3.59	3.72	8.51	111	22	170	69	14	105
PENTENE-1	0.2	0.0	0.2	0.12	0.00	0.09	4	0	2	2	0	1
2MBUT-1	0.5	0.0	0.6	0.34	0.00	0.35	10	0	7	6	0	4
NPENTANE	1.2	3.4	2.8	0.80	0.98	1.62	25	6	32	15	4	20
2MB=1=3	0.2	0.0	0.2	0.12	0.00	0.09	4	0	2	2	0	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 41113
DATE RUN: 01 31 78 AIR CONDITIONER USED
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: SWARTZLANDER FUEL: SUNNER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.6	0.0	0.9	0.43	0.00	0.53	13	0	10	8	0	6
CISPENT-2	0.3	0.0	0.3	0.18	0.00	0.18	6	0	3	3	0	2
2MBUT-2	1.3	0.2	2.1	0.86	0.39	1.18	26	2	23	16	1	14
22MBUTANE	2.2	3.3	0.2	1.50	7.24	0.09	46	42	2	29	26	1
CYPENTENE	0.1	0.0	0.2	0.09	0.00	0.09	3	0	2	2	0	1
3MPENTENE	0.1	0.0	0.1	0.06	0.00	0.04	2	0	1	1	0	1
CYPENTANE	0.1	0.0	0.5	0.09	0.00	0.31	3	0	6	2	0	4
23MBUTANE	1.0	0.3	1.9	0.68	0.59	1.10	21	3	22	13	2	14
2MPENTANE	3.1	0.7	4.9	2.12	1.57	2.81	65	9	56	40	6	35
3MPENTANE	1.4	0.4	2.6	0.98	0.78	1.49	30	5	30	19	3	18
HEXENE-1	0.2	0.0	0.2	0.15	0.00	0.13	5	0	3	3	0	2
N HEXANE	0.9	0.2	1.4	0.61	0.39	0.79	19	2	16	12	1	10
TC6=3=2	0.8	0.0	1.0	0.55	0.00	0.57	17	0	11	10	0	7
CC6=3	0.2	0.0	0.2	0.12	0.00	0.09	4	0	2	2	0	1
2MPENTENE2	0.3	0.0	0.3	0.21	0.00	0.18	6	0	3	4	0	2
MCYP43M2C5	1.3	0.2	1.9	0.86	0.39	1.10	26	2	21	16	1	13
24MPENTANE	1.9	0.4	2.7	1.32	0.78	1.54	40	5	30	25	3	19
BENZENE	5.7	2.6	8.5	3.84	5.68	4.87	107	30	88	66	19	54
CYHEXANE	0.1	0.1	0.2	0.09	0.20	0.09	3	1	2	2	1	1
2MC6+23MC5	5.0	1.0	6.1	3.38	2.15	3.51	103	13	69	64	8	43
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.4	0.3	1.7	0.98	0.59	0.97	30	3	19	19	2	12
224MPENTAN	11.4	2.6	12.9	7.77	5.68	7.42	237	33	146	147	21	91
NHEPTANE	1.4	0.2	1.2	0.95	0.39	0.70	29	2	14	18	1	9
MCYHEXANE	0.7	0.1	0.7	0.46	0.20	0.39	14	1	8	9	1	5
25MHEXANE	1.5	0.2	1.0	1.01	0.39	0.57	31	2	11	19	1	7
24MC6+233M	1.0	0.3	1.1	0.71	0.59	0.66	22	3	13	13	2	8
234MC5	3.9	0.5	3.3	2.67	1.17	1.89	81	7	37	51	4	23
TOLUENE	9.1	1.9	8.6	6.14	4.31	4.91	173	23	89	107	14	56
23MC6+4MC7	1.4	0.3	1.2	0.95	0.59	0.70	29	3	14	18	2	9

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 41113
DATE RUN: 01 31 78 AIR CONDITIONER USED
CAR: 1977 PLYMOUTH FURY CALIF VIN: RL41G7A222946 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.3	0.2	1.1	0.86	0.39	0.66	26	2	13	16	1	8
3MHEPTANE	1.1	0.2	1.0	0.77	0.39	0.57	23	2	11	15	1	7
255MC6	0.9	0.2	0.8	0.61	0.39	0.48	19	2	9	12	1	6
N OCTANE	0.5	0.1	0.5	0.37	0.20	0.26	11	1	5	7	1	3
223MC6	0.1	0.0	0.1	0.09	0.00	0.04	3	0	1	2	0	1
ETCYHEXANE	0.3	0.0	0.2	0.21	0.00	0.09	6	0	2	4	0	1
ET BENZENE	1.8	0.2	0.9	1.20	0.39	0.53	34	2	10	21	1	6
M+PXYLENE	4.8	0.8	3.6	3.29	1.76	2.06	93	10	38	58	6	23
24MC8	0.6	0.1	0.5	0.43	0.20	0.31	13	1	6	8	1	4
O XYLENE	1.7	0.3	1.4	1.17	0.59	0.79	33	3	14	21	2	9
N NONANE	0.3	0.0	0.3	0.21	0.00	0.18	7	0	3	4	0	2
IPRBENZENE	0.3	0.1	0.2	0.18	0.20	0.13	5	1	2	3	1	2
NPRBENZENE	0.3	0.0	0.2	0.18	0.00	0.09	5	0	2	3	0	1
1M3ETBENZ	1.4	0.1	0.9	0.95	0.20	0.53	27	1	10	17	1	6
135MEBENZ	0.5	0.1	0.4	0.34	0.20	0.22	10	1	4	6	1	3
1M2ETBENZ	0.5	0.1	0.4	0.31	0.20	0.22	9	1	4	5	1	3
124MBENZ	1.4	0.3	1.1	0.95	0.59	0.61	27	3	11	17	2	7
SBUBENZENE	0.1	0.1	0.2	0.09	0.20	0.09	3	1	2	2	1	1
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.3	0.0	0.2	0.18	0.00	0.09	5	0	2	3	0	1
INDANE	0.1	0.0	0.1	0.06	0.00	0.04	2	0	1	1	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.2	0.1	0.2	0.15	0.20	0.09	4	1	2	3	1	1
1M3PRBENZ	0.2	0.1	0.2	0.15	0.20	0.09	4	1	2	3	1	1
UNKNOWNS	4.9	0.8	3.3	3.35	1.76	1.89	96	10	35	60	6	22

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50001
DATE RUN: 06 01 78
CAR: 1977 PLYMOUTH FURY 49S VIN: RL41G7AI50083 DRIVER: L J WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 0

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	2126.7	128.6	176.0
GC PPMC	1808.4	145.9	130.4

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	144.3	17.8	12.0	7.98	12.20	9.20	2217	315	211	1378	196	131
SATURATES	737.2	44.5	50.4	40.77	30.50	38.65	10141	705	792	6303	438	492
OLEFINS	255.8	44.4	35.1	14.15	30.43	26.92	3437	687	538	2136	427	335
ACETYLENE	128.8	1.8	3.4	7.12	1.23	2.61	1606	26	48	998	16	30
NAPTHENES	36.1	1.9	2.1	2.00	1.30	1.61	485	29	32	301	18	20
AROMATICS	323.0	22.1	19.4	17.86	15.15	14.88	4075	321	279	2533	199	174
BENZENE	30.0	3.8	3.5	1.66	2.60	2.68	374	55	50	232	34	31
TOLUENE	81.8	5.8	5.7	4.52	3.98	4.37	1032	84	82	641	52	51
C8+AROM	211.2	12.5	10.2	11.68	8.57	7.82	2708	185	149	1683	115	93
UNKNOWN	183.2	13.4	8.0	0.00	0.00	0.00	2355	198	117	1464	123	73
INDIVIDUAL COMPONENTS												
METHANE	144.3	17.8	12.0	7.98	12.20	9.20	2217	315	211	1378	196	131
ETHYLENE	108.0	24.1	16.4	5.97	16.52	12.58	1451	373	252	902	232	156
ETHANE	12.3	3.3	2.4	0.68	2.26	1.84	177	55	39	110	34	25
ACETYLENE	128.8	1.8	3.4	7.12	1.23	2.61	1606	26	48	998	16	30
C3 + C3=	40.5	8.9	7.7	2.24	6.10	5.90	544	138	118	338	86	73
C=C=C	1.3	0.1	0.2	0.07	0.07	0.15	17	1	3	10	1	2
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	8.9	0.6	0.9	0.49	0.41	0.69	124	10	14	77	6	9
B1 + IB	26.5	5.5	4.6	1.47	3.77	3.53	356	85	71	221	53	44
NC4 +B=1=3	57.1	4.6	6.8	3.16	3.15	5.21	795	74	108	494	46	67
TBUTENE-2	6.1	0.9	0.8	0.34	0.62	0.61	82	14	12	51	9	8
22MPROPANE	0.2	0.0	0.0	0.01	0.00	0.00	3	0	0	2	0	0
CBUTENE-2	5.8	0.7	0.6	0.32	0.48	0.46	78	11	9	48	7	6
B=1=2	0.1	0.0	0.0	0.01	0.00	0.00	1	0	0	1	0	0
3MB1	1.8	0.2	0.2	0.10	0.14	0.15	24	3	3	15	2	2
ISOPENTANE	62.0	4.4	6.1	3.43	3.02	4.68	857	70	96	533	44	60
PENTENE-1	3.3	0.2	0.2	0.18	0.14	0.15	44	3	3	28	2	2
2MBUT-1	6.6	0.4	0.5	0.36	0.27	0.38	89	6	8	55	4	5
NPENTANE	10.3	0.8	1.0	0.57	0.55	0.77	142	13	16	88	8	10
2MB=1=3	0.8	0.0	0.0	0.04	0.00	0.00	10	0	0	6	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50001
DATE RUN: 06 01 78
CAR: 1977 PLYMOUTH FURY 4VS VIN: RL41G7A150083 DRIVER: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	8.8	0.5	0.6	0.49	0.34	0.46	118	8	9	73	5	6
CISPENT-2	4.8	0.2	0.3	0.27	0.14	0.23	64	3	5	40	2	3
2MBUT-2	14.7	1.3	1.3	0.81	0.89	1.00	198	20	20	123	12	12
22MBUTANE	0.6	0.0	0.0	0.03	0.00	0.00	8	0	0	5	0	0
CYPENTENE	2.0	0.2	0.2	0.11	0.14	0.15	26	3	3	16	2	2
3MPENTENE	1.7	0.1	0.1	0.09	0.07	0.08	23	2	2	14	1	1
CYPENTANE	1.8	0.1	0.1	0.10	0.07	0.08	24	2	2	15	1	1
23MBUTANE	15.5	0.7	0.9	0.86	0.48	0.69	213	11	14	133	7	9
2MPENTANE	31.8	3.1	3.7	1.76	2.12	2.84	437	49	58	272	31	36
3MPENTANE	18.2	1.2	1.4	1.01	0.82	1.07	250	19	22	156	12	14
HEXENE-1	5.5	0.3	0.4	0.30	0.21	0.31	74	5	6	46	3	4
N HEXANE	7.9	0.4	0.5	0.44	0.27	0.38	109	6	8	68	4	5
TC6=3,=2	9.6	0.5	0.6	0.53	0.34	0.46	129	8	9	80	5	6
CC6=3	3.1	0.1	0.1	0.17	0.07	0.08	42	2	2	26	1	1
2MPENTENE2	4.8	0.2	0.3	0.27	0.14	0.23	64	3	5	40	2	3
MCYP43M2C5	14.5	0.9	1.0	0.80	0.62	0.77	195	14	15	121	9	10
24MPENTANE	30.7	1.9	2.0	1.70	1.30	1.53	421	30	31	262	19	19
BENZENE	30.0	3.8	3.5	1.66	2.60	2.68	374	55	50	232	34	31
CYHEXANE	3.1	0.2	0.3	0.17	0.14	0.23	42	3	5	26	2	3
2MC6+23MC5	74.7	4.6	4.3	4.13	2.74	3.30	1024	63	67	637	39	42
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	18.3	0.9	1.0	1.01	0.62	0.77	251	14	16	156	9	10
224MPENTAN	158.4	8.9	9.5	8.76	6.10	7.29	2166	140	148	1346	87	92
NHEPTANE	17.1	0.7	0.8	0.95	0.48	0.61	234	11	13	146	7	8
MCYHEXANE	10.1	0.5	0.5	0.56	0.34	0.38	136	8	8	84	5	5
25MHEXANE	18.1	0.8	0.8	1.00	0.55	0.61	248	13	12	154	8	8
24MC6+233M	18.7	1.0	1.0	1.03	0.69	0.77	256	16	16	159	10	10
234MC5	57.1	2.2	2.3	3.16	1.51	1.76	781	35	36	485	22	22
TOLUENE	81.8	5.8	5.7	4.52	3.98	4.37	1032	84	82	641	52	51
23MC6+4MC7	19.9	0.9	1.0	1.10	0.62	0.77	272	14	16	169	9	10

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50001
DATE RUN: 06 01 78
CAR: 1977 PLYMOUTH FURY 49S VIN: RL41G7A150083 DRIVER: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	18.4	0.8	0.8	1.02	0.55	0.61	252	13	12	156	8	8
3MHEPTANE	19.3	0.8	0.8	1.07	0.55	0.61	264	13	12	164	8	8
255MC6	23.4	1.0	1.0	1.29	0.69	0.77	319	16	16	199	10	10
N OCTANE	9.2	0.3	0.3	0.51	0.21	0.23	126	5	5	78	3	3
223MC6	3.6	0.1	0.1	0.20	0.07	0.08	49	2	2	31	1	1
ETCYHEXANE	6.6	0.2	0.2	0.36	0.14	0.15	89	3	3	55	2	2
ET BENZENE	17.3	1.0	0.8	0.96	0.69	0.61	220	15	12	137	9	7
M+PXYLENE	57.5	3.6	3.3	3.18	2.47	2.53	731	53	48	454	33	30
244MC8	11.3	0.5	0.4	0.62	0.34	0.31	154	8	6	96	5	4
O XYLENE	25.3	1.5	1.3	1.40	1.03	1.00	322	22	19	200	14	12
N NONANE	12.4	0.5	0.5	0.69	0.34	0.38	169	8	8	105	5	5
IPRBENZENE	8.8	0.4	0.3	0.49	0.27	0.23	113	6	4	70	4	3
NPRBENZENE	5.4	0.2	0.1	0.30	0.14	0.08	69	3	1	43	2	1
1M3ETBENZ	22.0	1.4	1.1	1.22	0.96	0.84	281	21	16	175	13	10
135MEBENZ	8.9	0.5	0.4	0.49	0.34	0.31	114	7	6	71	5	4
1M2ETBENZ	14.7	0.7	0.6	0.81	0.48	0.46	188	10	9	117	6	5
124MBENZ	26.7	1.6	1.3	1.48	1.10	1.00	342	24	19	212	15	12
SBUBENZENE	4.0	0.2	0.1	0.22	0.14	0.08	51	3	1	32	2	1
N DECANE	1.8	0.1	0.1	0.10	0.07	0.08	25	2	2	15	1	1
123MBENZ	5.0	0.3	0.2	0.28	0.21	0.15	64	4	3	40	3	2
INDANE	2.9	0.2	0.1	0.16	0.14	0.08	36	3	1	23	2	1
13EBENZENE	0.9	0.0	0.0	0.05	0.00	0.00	12	0	0	7	0	0
NBUBENZENE	4.6	0.4	0.3	0.25	0.27	0.23	59	6	4	37	4	3
1M3PRBENZ	7.2	0.5	0.3	0.40	0.34	0.23	93	7	4	58	5	3
UNKNOWNS	183.2	13.4	8.0	10.13	9.18	6.13	2355	198	117	1464	123	73

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50002
DATE RUN: 06 06 78
CAR: 1977 PLYMOUTH FURY 49S VIN: RL41G7A150083 DRIVER: L J WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 0

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	1947.4	79.6	111.7
GC PPMC	1606.2	62.9	72.2

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
MAJOR COMPONENTS												
METHANE	152.7	10.4	9.3	9.51	16.53	12.88	2410	253	184	1498	157	115
SATURATES	681.3	21.6	31.5	42.42	34.34	43.63	9628	470	559	5984	292	347
OLEFINS	272.8	15.3	16.3	16.98	24.32	22.58	3765	325	282	2340	202	176
ACETYLENE	124.5	0.4	1.1	7.75	0.64	1.52	1595	8	18	991	5	11
NAPTHENES	30.4	0.8	1.1	1.89	1.27	1.52	420	17	19	261	11	12
AROMATICS	219.0	9.7	10.9	13.63	15.42	15.10	2839	193	177	1764	120	110
BENZENE	31.1	2.0	1.9	1.94	3.18	2.63	398	39	31	248	24	19
TOLUENE	61.1	2.5	3.0	3.80	3.97	4.16	792	50	49	492	31	30
C6+AROM	126.8	5.2	6.0	7.89	8.27	8.31	1671	105	99	1038	66	62
UNKNOWN	125.5	4.7	2.0	0.00	0.00	0.00	1658	96	33	1030	59	21
INDIVIDUAL COMPONENTS												
METHANE	152.7	10.4	9.3	9.51	16.53	12.88	2410	253	184	1498	157	115
ETHYLENE	115.0	8.7	7.6	7.16	13.83	10.53	1587	185	132	987	115	82
ETHANE	13.7	1.9	1.9	0.85	3.02	2.63	203	43	35	126	27	22
ACETYLENE	124.5	0.4	1.1	7.75	0.64	1.52	1595	8	18	991	5	11
C3 + C3=	42.4	3.4	3.7	2.64	5.41	5.12	585	72	64	364	45	40
C=C=C	1.4	0.0	0.0	0.09	0.00	0.00	18	0	0	11	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	10.4	0.3	0.7	0.65	0.48	0.97	149	7	13	92	4	8
B1 + 1B	26.9	1.8	2.1	1.67	2.86	2.91	371	38	36	231	24	23
NC4 +B=1=3	65.3	2.5	4.8	4.07	3.97	6.65	934	55	86	580	34	54
TBUTENE-2	5.9	0.3	0.4	0.37	0.48	0.55	81	6	7	51	4	4
22MPRUPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	5.5	0.2	0.3	0.34	0.32	0.42	76	4	5	47	3	3
B=1=2	0.1	0.0	0.0	0.01	0.00	0.00	1	0	0	1	0	0
3MB1	2.0	0.0	0.1	0.12	0.00	0.14	28	0	2	17	0	1
ISOPENTANE	74.3	2.8	4.7	4.63	4.45	6.51	1055	61	84	656	38	52
PENTENE-1	3.8	0.0	0.1	0.24	0.00	0.14	52	0	2	33	0	1
2MBUT-1	7.6	0.1	0.2	0.47	0.16	0.28	105	2	3	65	1	2
NPENTANE	12.1	0.5	0.7	0.75	0.79	0.97	172	11	12	107	7	8
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50002
DATE RUN: 06 06 78
CAR: 1977 PLYMOUTH FURY 495 VIN: RL41G7A150083 DRIVER: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	10.1	0.1	0.3	0.63	0.16	0.42	139	2	5	87	1	3
CISPENT-2	5.4	0.0	0.1	0.34	0.00	0.14	75	0	2	46	0	1
2MBUT-2	16.6	0.3	0.6	1.03	0.48	0.83	229	6	10	142	4	6
22MBUTANE	0.2	0.5	0.2	0.01	0.79	0.28	3	11	4	2	7	2
CYPENTENE	2.4	0.0	0.1	0.15	0.00	0.14	32	0	2	20	0	1
3MPENTENE	1.9	0.0	0.0	0.12	0.00	0.00	26	0	0	16	0	0
CYPENTANE	1.7	0.0	0.1	0.11	0.00	0.14	23	0	2	15	0	1
23MBUTANE	14.6	0.4	0.6	0.91	0.64	0.83	206	9	11	128	5	7
2MPENTANE	39.3	1.3	2.1	2.45	2.07	2.91	555	28	37	345	18	23
3MPENTANE	20.8	0.5	0.9	1.29	0.79	1.25	294	11	16	183	7	10
HEXENE-1	6.6	0.1	0.2	0.41	0.16	0.28	91	2	3	57	1	2
N HEXANE	8.8	0.2	0.3	0.55	0.32	0.42	124	4	5	77	3	3
TC6=3,=2	10.5	0.2	0.3	0.65	0.32	0.42	145	4	5	90	3	3
CC6=3	3.4	0.0	0.1	0.21	0.00	0.14	47	0	2	29	0	1
2MPENTENE2	5.3	0.1	0.1	0.33	0.16	0.14	73	2	2	45	1	1
MCYP43M2C5	15.8	0.4	0.5	0.96	0.64	0.69	218	8	9	136	5	5
24MPENTANE	31.6	0.8	1.2	1.97	1.27	1.66	445	17	21	277	11	13
BENZENE	31.1	2.0	1.9	1.94	3.18	2.63	398	39	31	248	24	19
CYHEXANE	0.4	0.1	0.1	0.02	0.16	0.14	6	2	2	3	1	1
2MC6+23MC5	70.9	1.7	2.5	4.41	2.70	3.46	999	37	44	621	23	27
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	16.8	0.4	0.6	1.05	0.64	0.83	237	9	11	147	5	7
224MPENTAN	138.7	3.9	5.5	8.64	6.20	7.62	1949	84	97	1211	52	60
NHEPTANE	14.8	0.2	0.4	0.92	0.32	0.55	208	4	7	130	3	4
MCYHEXANE	8.5	0.2	0.3	0.53	0.32	0.42	117	4	5	73	3	3
25MHEXANE	14.1	0.3	0.5	0.88	0.48	0.69	196	6	9	123	4	5
24MC6+233M	12.9	0.4	0.6	0.80	0.64	0.83	181	9	11	113	5	7
234MC5	44.0	0.9	1.2	2.74	1.43	1.66	618	19	21	384	12	13
TOLUENE	61.1	2.5	3.0	3.80	3.97	4.16	792	50	49	492	31	30
23MC6+4MC7	14.1	0.4	0.4	0.88	0.64	0.55	198	9	7	123	5	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50002
DATE RUN: 06 06 78
CAR: 1977 PLYMOUTH FURY 495 VIN: RL41G7A150083 DRIVER: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	12.6	0.3	0.3	0.78	0.48	0.42	177	6	5	110	4	3
3MHEPTANE	12.9	0.3	0.3	0.80	0.48	0.42	181	6	5	113	4	3
255MC6	15.5	0.5	0.6	0.97	0.79	0.83	217	11	11	135	7	7
N OCTANE	5.7	0.1	0.1	0.35	0.16	0.14	80	2	2	50	1	1
223MC6	2.2	0.1	0.0	0.14	0.16	0.00	31	2	0	19	1	0
ETCYHEXANE	4.0	0.1	0.1	0.25	0.16	0.14	55	2	2	34	1	1
ET BENZENE	11.4	0.4	0.4	0.71	0.64	0.55	149	8	7	93	5	4
M+PXYLENE	36.2	1.4	1.8	2.25	2.23	2.49	473	28	30	294	17	18
2+4MC8	6.8	0.2	0.2	0.42	0.32	0.28	95	4	4	59	3	2
O XYLENE	15.3	0.6	0.7	0.95	0.95	0.97	200	12	11	124	7	7
N NONANE	7.2	0.2	0.2	0.45	0.32	0.28	101	4	4	63	3	2
IPRBENZENE	4.9	0.2	0.2	0.31	0.32	0.28	64	4	3	40	3	2
NPRBENZENE	3.3	0.1	0.1	0.21	0.16	0.14	43	2	2	27	1	1
1M3ETBENZ	13.5	0.6	0.7	0.84	0.95	0.97	177	12	12	110	8	7
135MEBENZ	5.3	0.2	0.2	0.33	0.32	0.28	70	4	3	43	3	2
1M2ETBENZ	8.2	0.4	0.3	0.51	0.64	0.42	108	8	5	67	5	3
124MBENZ	15.2	0.7	0.8	0.95	1.11	1.11	200	14	13	124	9	8
SBUBENZENE	2.2	0.0	0.1	0.14	0.00	0.14	29	0	2	18	0	1
N DECANE	1.0	0.0	0.0	0.06	0.00	0.00	14	0	0	9	0	0
123MBENZ	2.8	0.1	0.2	0.17	0.16	0.28	37	2	3	23	1	2
INDANE	1.7	0.1	0.1	0.11	0.16	0.14	22	2	2	14	1	1
13EBENZENE	0.2	0.0	0.0	0.01	0.00	0.00	3	0	0	2	0	0
NBUBENZENE	2.6	0.2	0.2	0.16	0.32	0.28	34	4	3	21	3	2
1M3PRBENZ	4.0	0.2	0.2	0.25	0.32	0.28	53	4	3	33	3	2
UNKNOWNS	125.5	4.7	2.8	7.81	7.47	2.77	1658	96	33	1030	59	21

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50201
DATE RUN: 05 30 78
CAR: 1977 PLYMOUTH FURY 495 VIN: RL41G7A150083 DRIVEN: L J WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FLDERAL TEST PROCEDURE

TEST TEMPERATURE = 20

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	952.0	57.8	113.9
GC PPMC	847.8	48.3	64.1

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	103.6	9.6	8.1	12.22	19.88	12.64	1543	213	183	959	133	114
SATURATES	312.1	19.1	28.1	36.81	39.54	43.84	4163	380	569	2587	236	354
OLEFINS	157.9	11.0	14.7	18.62	22.77	22.93	2057	214	291	1278	133	181
ACETYLENE	91.8	0.5	0.9	10.83	1.04	1.40	1110	9	17	690	6	10
NAPTHENES	14.3	0.9	1.3	1.69	1.86	2.03	186	17	26	116	11	16
AROMATICS	115.3	6.0	9.8	13.60	12.42	15.29	1410	109	182	877	68	113
BENZENE	17.0	1.4	1.6	2.01	2.90	2.50	206	25	29	128	16	18
TOLUENE	32.4	1.8	2.8	3.82	3.73	4.37	396	33	52	246	20	32
C8+AROM	65.9	2.8	5.4	7.77	5.80	8.42	819	52	102	509	32	63
UNKNOWN	52.8	1.2	1.2	0.00	0.00	0.00	658	22	23	409	14	14
INDIVIDUAL COMPONENTS												
METHANE	103.6	9.6	8.1	12.22	19.88	12.64	1543	213	183	959	133	114
ETHYLENE	71.4	5.6	6.7	8.42	11.59	10.45	930	109	132	578	68	82
ETHANE	8.3	1.7	1.5	0.98	3.52	2.34	116	35	32	72	22	20
ACETYLENE	91.8	0.5	0.9	10.83	1.04	1.40	1110	9	17	690	6	10
C3 + C3=	27.3	2.6	3.4	3.22	5.38	5.30	356	51	67	221	31	42
C=C=C	0.8	0.0	0.0	0.09	0.00	0.00	10	0	0	6	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	4.6	0.3	0.6	0.54	0.62	0.94	62	6	12	39	4	8
B1 + 1B	16.9	1.4	1.8	1.99	2.90	2.81	220	27	36	137	17	22
NC4 +B=1=3	28.5	2.6	4.5	3.36	5.38	7.02	385	52	92	239	33	57
TBUTENE-2	3.3	0.2	0.3	0.39	0.41	0.47	43	4	6	27	2	4
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	3.1	0.1	0.3	0.37	0.21	0.47	40	2	6	25	1	4
B=1=2	0.1	0.0	0.0	0.01	0.00	0.00	1	0	0	1	0	0
3MB1	1.0	0.1	0.1	0.12	0.21	0.16	13	2	2	8	1	1
ISOPENTANE	31.7	2.2	3.8	3.74	4.55	5.93	425	44	77	264	27	48
PENTENE-1	1.8	0.0	0.1	0.21	0.00	0.16	23	0	2	15	0	1
2MBUT-1	3.4	0.1	0.2	0.40	0.21	0.31	44	2	4	28	1	2
NPENTANE	5.3	0.4	0.8	0.63	0.83	1.25	71	8	16	44	5	10
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50201
DATE RUN: 05 30 78
CAR: 1977 PLYMOUTH FURY 495 VIN: RL41G7A150083 DRIVER: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	5.0	0.1	0.3	0.59	0.21	0.47	65	2	6	40	1	4
CISPENT-2	2.6	0.1	0.1	0.31	0.21	0.16	34	2	2	21	1	1
2MBUT-2	7.6	0.3	0.6	0.90	0.62	0.94	99	6	12	62	4	7
22MBUTANE	0.1	1.8	0.5	0.01	3.73	0.78	1	36	10	1	22	6
CYPENTENE	1.1	0.0	0.1	0.13	0.00	0.16	14	0	2	9	0	1
3MPENTENE	0.9	0.1	0.1	0.11	0.21	0.16	12	2	2	7	1	1
CYPENTANE	0.7	0.3	0.1	0.08	0.62	0.16	9	6	2	6	4	1
23MBUTANE	6.8	0.3	0.5	0.80	0.62	0.78	91	6	10	56	4	6
2MPENTANE	19.2	0.6	1.9	2.26	1.66	2.90	256	16	38	159	10	24
3MPENTANE	9.3	0.5	0.7	1.10	1.04	1.09	124	10	14	77	6	9
HEXENE-1	2.8	0.1	0.1	0.33	0.21	0.16	36	2	2	23	1	1
N HEXANE	4.0	0.1	0.3	0.47	0.21	0.47	53	2	6	33	1	4
TC6=3=2	4.7	0.1	0.3	0.55	0.21	0.47	61	2	6	38	1	4
CC6=3	1.8	0.0	0.1	0.21	0.00	0.16	23	0	2	15	0	1
2MPENTENE2	2.3	0.1	0.1	0.27	0.21	0.16	30	2	2	19	1	1
MCYP43M2C5	7.0	0.3	0.5	0.83	0.62	0.78	91	6	10	57	4	6
24MPENTANE	14.8	0.7	1.0	1.75	1.45	1.56	197	14	20	122	9	13
BENZENE	17.0	1.4	1.6	2.01	2.90	2.50	206	29	29	128	18	18
CYHEXANE	0.9	0.1	0.1	0.11	0.21	0.16	12	2	2	7	1	1
2MC6+23MC5	32.6	1.4	2.2	3.87	2.90	3.43	436	20	44	271	17	28
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.7	0.3	0.5	0.08	0.62	0.78	9	6	10	6	4	6
224MPENTAN	67.7	3.2	4.7	7.99	6.63	7.33	898	63	95	558	39	59
NHEPTANE	6.6	0.1	0.3	0.78	0.21	0.47	88	2	6	55	1	4
MCYHEXANE	3.9	0.1	0.3	0.46	0.21	0.47	51	2	6	32	1	4
25MHEXANE	7.2	0.3	0.4	0.85	0.62	0.62	95	6	8	59	4	5
24MC6+233M	6.1	0.3	0.5	0.72	0.62	0.78	81	6	10	50	4	6
234MC5	20.5	0.7	1.1	2.42	1.45	1.72	272	14	22	169	9	14
TOLUENE	32.4	1.8	2.8	3.82	3.73	4.37	396	33	52	246	20	32
23MC6+4MC7	7.0	0.3	0.5	0.83	0.62	0.78	93	6	10	58	4	6

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50201
DATE RUN: 05 30 78
CAR: 1977 PLYMOUTH FURY 49S VIN: RL41G7A150083 DRIVER: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	6.2	0.2	0.4	0.73	0.41	0.62	82	4	8	51	2	5
3MHEPTANE	6.2	0.2	0.4	0.73	0.41	0.62	82	4	8	51	2	5
255MC6	7.8	0.3	0.5	0.92	0.62	0.78	103	6	10	64	4	6
N OCTANE	2.6	0.1	0.1	0.31	0.21	0.16	34	2	2	21	1	1
223MC6	0.9	0.1	0.1	0.11	0.21	0.16	12	2	2	7	1	1
ETCYHEXANE	1.8	0.1	0.3	0.21	0.21	0.47	23	2	6	15	1	4
ET BENZENE	5.9	0.2	0.5	0.70	0.41	0.78	73	4	9	45	2	6
M+PXYLENE	19.4	0.9	1.8	2.29	1.86	2.81	239	17	34	149	10	21
244MC8	3.4	0.1	0.2	0.40	0.21	0.31	45	2	4	28	1	2
O XYLENE	7.9	0.3	0.6	0.93	0.62	0.94	97	6	11	61	3	7
N NONANE	3.5	0.1	0.1	0.41	0.21	0.16	46	2	2	29	1	1
IPRBENZENE	2.4	0.1	0.1	0.28	0.21	0.16	30	2	2	18	1	1
NPRBENZENE	1.6	0.0	0.1	0.19	0.00	0.16	20	0	2	12	0	1
1M3ETBENZ	7.2	0.3	0.6	0.85	0.62	0.94	89	6	11	55	3	7
135MEBENZ	2.8	0.1	0.2	0.33	0.21	0.31	35	2	4	22	1	2
1M2ETBENZ	4.1	0.1	0.2	0.48	0.21	0.31	51	2	4	32	1	2
124MBENZ	8.1	0.3	0.8	0.96	0.62	1.25	100	6	15	62	3	9
SBUBENZENE	1.0	0.1	0.1	0.12	0.21	0.16	12	2	2	8	1	1
N DECANE	0.3	0.0	0.0	0.04	0.00	0.00	4	0	0	2	0	0
123MBENZ	1.4	0.1	0.1	0.17	0.21	0.16	17	2	2	11	1	1
INDANE	0.7	0.1	0.1	0.08	0.21	0.16	9	2	2	5	1	1
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	1.4	0.1	0.1	0.17	0.21	0.16	17	2	2	11	1	1
1M3PRBENZ	2.0	0.1	0.1	0.24	0.21	0.16	25	2	2	15	1	1
UNKNOWNS	52.8	1.2	1.2	6.23	2.48	1.87	658	22	23	409	14	14

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50202
DATE RUN: 06 07 78
CAR: 1977 PLYMOUTH FURY 49S VIN: RL41G7A150083 DRIVER: SWARTZLANDER FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 20

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	1408.2	100.0	146.2
GC PPMC	1538.0	80.4	103.5

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	126.4	10.4	11.3	8.22	12.94	10.92	1545	243	199	960	151	124
SATURATES	726.4	27.9	40.4	47.23	34.70	39.03	7948	583	637	4940	362	396
OLEFINS	263.9	22.2	28.3	17.16	27.61	27.34	2820	453	436	1753	282	271
ACETYLENE	124.6	1.0	2.4	8.10	1.24	2.32	1236	19	34	768	12	21
NAPTHENES	32.4	1.2	1.4	2.11	1.49	1.35	346	24	22	215	15	13
AROMATICS	172.9	12.0	15.1	11.24	14.93	14.59	1735	230	218	1078	143	136
BENZENE	28.7	2.3	2.8	1.87	2.86	2.71	285	44	40	177	27	25
TOLUENE	51.5	3.3	4.4	3.35	4.10	4.25	517	63	64	321	39	40
C8+AROM	92.7	6.4	7.9	6.03	7.96	7.63	946	125	116	588	77	72
UNKNOWN	91.4	5.7	4.6	0.00	0.00	0.00	935	111	68	581	69	42
INDIVIDUAL COMPONENTS												
METHANE	126.4	10.4	11.3	8.22	12.94	10.92	1545	243	199	960	151	124
ETHYLENE	82.9	11.2	12.8	5.39	13.93	12.37	886	229	197	551	142	123
ETHANE	9.0	2.2	2.5	0.59	2.74	2.42	103	48	41	64	30	26
ACETYLENE	124.6	1.0	2.4	8.10	1.24	2.32	1236	19	34	768	12	21
C3 + C3=	35.9	4.9	6.8	2.33	6.09	6.57	384	100	105	238	62	65
C=C=C	1.4	0.1	0.1	0.09	0.12	0.10	14	2	1	9	1	1
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	16.9	0.5	0.7	1.10	0.62	0.68	187	11	11	116	7	7
B1 + IB	23.3	3.0	4.0	1.51	3.73	3.86	249	61	62	155	38	38
NC4 +B=1=3	109.1	3.9	5.5	7.09	4.85	5.31	1208	82	88	751	51	55
TBUTENE-2	9.8	0.5	0.6	0.64	0.62	0.58	105	10	9	65	6	6
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	8.7	0.4	0.5	0.57	0.50	0.48	93	8	8	58	5	5
B=1=2	0.1	0.0	0.0	0.01	0.00	0.00	1	0	0	1	0	0
3MB1	2.6	0.1	0.2	0.17	0.12	0.19	28	2	3	17	1	2
ISOPENTANE	114.8	3.5	5.5	7.46	4.35	5.31	1262	73	87	785	46	54
PENTENE-1	5.8	0.1	0.2	0.38	0.12	0.19	62	2	3	39	1	2
2MBUT-1	10.7	0.2	0.4	0.70	0.25	0.39	114	4	6	71	3	4
NPENTANE	17.6	0.6	0.8	1.14	0.75	0.77	194	13	13	120	8	8
2MB=1=3	0.4	0.0	0.0	0.03	0.00	0.00	4	0	0	3	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50202
DATE RUN: 06 07 78
CAR: 1977 PLYMOUTH FURY 49S VIN: RL41G7A150083 DRIVER: SWARTZLANDER FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	15.4	0.3	0.4	1.00	0.37	0.39	165	6	6	102	4	4
CISPENT-2	8.3	0.1	0.2	0.54	0.12	0.19	89	2	3	55	1	2
2MBUT-2	24.6	0.6	0.9	1.60	0.75	0.87	263	12	14	163	8	9
22MBUTANE	0.4	0.1	0.0	0.03	0.12	0.00	4	2	0	3	1	0
CYPENTENE	3.7	0.1	0.1	0.24	0.12	0.10	38	2	1	24	1	1
3MPENTENE	2.8	0.0	0.1	0.18	0.00	0.10	30	0	2	19	0	1
CYPENTANE	2.5	0.1	0.1	0.16	0.12	0.10	27	2	2	17	1	1
23MBUTANE	19.8	0.6	1.0	1.29	0.75	0.97	217	13	16	135	8	10
2MPENTANE	43.0	1.5	2.7	2.80	1.87	2.61	471	31	43	292	19	26
3MPENTANE	23.6	0.7	1.1	1.53	0.87	1.06	258	15	17	160	9	11
HEXENE-1	6.6	0.1	0.3	0.43	0.12	0.29	71	2	5	44	1	3
N HEXANE	9.2	0.3	0.4	0.60	0.37	0.39	101	6	6	63	4	4
TC6=3,=2	11.6	0.3	0.4	0.75	0.37	0.39	124	6	6	77	4	4
CC6=3	3.5	0.1	0.1	0.23	0.12	0.10	37	2	2	23	1	1
2MPENTENE2	5.8	0.1	0.2	0.38	0.12	0.19	62	2	3	39	1	2
MCYP43M2C5	16.8	0.5	0.6	1.09	0.62	0.58	180	10	9	112	6	6
24MPENTANE	31.3	1.1	1.6	2.04	1.37	1.55	341	23	25	212	14	16
BENZENE	28.7	2.3	2.8	1.87	2.86	2.71	285	44	40	177	27	25
CYHEXANE	2.9	0.2	0.2	0.19	0.25	0.19	31	4	3	19	3	2
2MC6+23MC5	65.0	2.3	3.3	4.23	2.86	3.19	709	48	52	441	30	32
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	15.0	0.5	0.8	0.98	0.62	0.77	164	10	13	102	6	8
224MPENTAN	120.9	5.2	7.3	7.86	6.47	7.05	1315	108	114	817	67	71
MHEPTANE	13.1	0.3	0.5	0.85	0.37	0.48	143	6	8	89	4	5
MCYHEXANE	7.3	0.3	0.4	0.47	0.37	0.39	78	6	6	48	4	4
25MHEXANE	11.2	0.4	0.6	0.73	0.50	0.58	122	8	9	76	5	6
24MC6+233M	11.3	0.6	0.8	0.73	0.75	0.77	123	12	13	76	8	8
234MC5	34.0	1.2	1.7	2.21	1.49	1.64	370	25	27	230	15	17
TOLUENE	51.5	3.3	4.4	3.35	4.10	4.25	517	63	64	321	39	40
23MC6+4MC7	11.3	0.5	0.7	0.73	0.62	0.68	123	10	11	76	6	7

EFFECT OF AMBIENT TEMPENATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50202
DATE RUN: 06 07 78
CAR: 1977 PLYMOUTH FURY 495 VIN: RL41G7A150083 DRIVEN: SWARTZLANDER FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	10.0	0.4	0.6	0.65	0.50	0.58	109	8	9	68	5	6
3MHEPTANE	10.3	0.4	0.6	0.67	0.50	0.58	112	8	9	70	5	6
255MC6	12.1	0.6	0.8	0.79	0.75	0.77	131	12	13	82	8	8
N OCTANE	4.6	0.1	0.2	0.30	0.12	0.19	50	2	3	31	1	2
223MC6	1.7	0.0	0.1	0.11	0.00	0.10	18	0	2	11	0	1
ETCYHEXANE	2.9	0.1	0.1	0.19	0.12	0.10	31	2	2	19	1	1
ET BENZENE	8.4	0.5	0.6	0.55	0.62	0.58	85	10	9	53	6	5
M+PXYLENE	27.5	2.0	2.5	1.79	2.49	2.42	278	39	36	173	24	23
2+4MC8	5.1	0.2	0.3	0.33	0.25	0.29	55	4	5	34	3	3
O XYLENE	11.5	0.8	1.0	0.75	1.00	0.97	116	15	15	72	10	9
N NONANE	5.4	0.2	0.3	0.35	0.25	0.29	59	4	5	36	3	3
IPRBENZENE	3.6	0.2	0.2	0.23	0.25	0.19	37	4	3	23	2	2
NPRBENZENE	2.2	0.1	0.1	0.14	0.12	0.10	22	2	1	14	1	1
1M3ETBENZ	9.5	0.7	0.9	0.62	0.87	0.87	97	14	13	60	8	8
135MEBENZ	3.8	0.2	0.3	0.25	0.25	0.29	39	4	4	24	2	3
1M2ETBENZ	5.9	0.3	0.4	0.38	0.37	0.39	60	6	6	37	4	4
124MBENZ	11.2	0.9	1.0	0.73	1.12	0.97	114	17	15	71	11	9
SBUBENZENE	1.5	0.1	0.1	0.10	0.12	0.10	15	2	1	10	1	1
N DECANE	0.7	0.0	0.0	0.05	0.00	0.00	8	0	0	5	0	0
123MBENZ	2.0	0.1	0.2	0.13	0.12	0.19	20	2	3	13	1	2
INDANE	1.1	0.1	0.1	0.07	0.12	0.10	11	2	1	7	1	1
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	1.8	0.2	0.2	0.12	0.25	0.19	18	4	3	11	2	2
1M3PRBENZ	2.7	0.2	0.3	0.18	0.25	0.29	28	4	4	17	2	3
UNKNOWNS	91.4	5.7	4.6	5.94	7.09	4.44	935	111	68	581	69	42

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50401
DATE RUN: 05 25 78
CAR: 1977 PLYMOUTH FURY 495 VIN: RL4167A150083 DRIVER: L J WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 40

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	401.5	26.1	70.0
GC PPMC	343.2	20.5	60.6

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	42.0	6.4	7.0	12.24	31.22	11.55	628	130	99	390	81	62
SATURATES	120.3	8.1	23.6	35.05	39.51	38.94	1611	147	299	1001	91	186
OLEFINS	81.1	3.0	11.2	23.63	14.63	18.48	1061	53	139	659	33	86
ACETYLENE	36.2	0.3	1.0	10.55	1.46	1.65	439	5	11	273	3	7
NAPTHENES	5.8	0.2	0.9	1.69	0.98	1.49	76	4	11	47	2	7
AROMATICS	43.6	2.4	14.3	12.70	11.71	23.60	535	40	166	333	25	103
BENZENE	8.4	0.5	1.4	2.45	2.44	2.31	102	8	16	63	5	10
TOLUENE	12.9	0.8	3.7	3.76	3.90	6.11	158	13	43	98	8	27
C8+AROM	22.3	1.1	9.2	6.50	5.37	15.18	278	19	109	173	12	68
UNKNOWN	14.2	0.1	2.6	0.00	0.00	0.00	178	2	31	110	1	19
INDIVIDUAL COMPONENTS												
METHANE	42.0	6.4	7.0	12.24	31.22	11.55	628	130	99	390	81	62
ETHYLENE	36.5	1.6	4.7	10.64	7.80	7.76	477	28	58	297	18	36
ETHANE	5.1	1.1	1.4	1.49	5.37	2.31	71	21	19	44	13	12
ACETYLENE	36.2	0.3	1.0	10.55	1.46	1.65	439	5	11	273	3	7
C3 + C3=	17.8	0.8	2.6	5.19	3.90	4.29	233	14	32	145	9	20
C=C=C	0.5	0.0	0.0	0.15	0.00	0.00	6	0	0	4	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	2.2	0.2	0.6	0.64	0.98	0.99	30	4	8	19	2	5
B1 + 1B	10.7	0.4	1.5	3.12	1.95	2.48	140	7	19	87	4	12
NC4 +B=1=3	12.9	1.3	4.4	3.76	6.34	7.26	175	24	56	109	15	35
TBUTENE-2	1.7	0.1	0.3	0.50	0.49	0.50	22	2	4	14	1	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.4	0.0	0.2	0.41	0.00	0.33	18	0	2	11	0	2
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.5	0.0	0.1	0.15	0.00	0.17	7	0	1	4	0	1
ISOPENTANE	13.8	1.1	3.5	4.02	5.37	5.78	186	20	45	115	12	28
PENTENE-1	0.7	0.0	0.1	0.20	0.00	0.17	9	0	1	6	0	1
2MBUT-1	1.4	0.0	0.2	0.41	0.00	0.33	18	0	2	11	0	2
NPENTANE	2.3	0.2	0.5	0.67	0.98	0.83	31	4	6	19	2	4
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50401
DATE RUN: 05 25 78
CAR: 1977 PLYMOUTH FURY 495 VIN: RL41G7A150083 DRIVER: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.6	0.0	0.3	0.47	0.00	0.50	21	0	4	13	0	2
CISPENT-2	0.8	0.0	0.1	0.23	0.00	0.17	10	0	1	7	0	1
2MBUT-2	2.9	0.1	0.5	0.84	0.49	0.83	38	2	6	24	1	4
22MBUTANE	0.1	0.4	0.2	0.03	1.95	0.33	1	7	3	1	5	2
CYPENTENE	0.4	0.0	0.1	0.12	0.00	0.17	5	0	1	3	0	1
3MPENTENE	0.3	0.0	0.1	0.09	0.00	0.17	4	0	1	2	0	1
CYPENTANE	0.4	0.0	0.1	0.12	0.00	0.17	5	0	1	3	0	1
23MBUTANE	4.0	0.1	0.5	1.17	0.49	0.83	54	2	6	33	1	4
2MPENTANE	6.4	0.4	1.3	1.92	1.95	2.15	68	7	16	55	5	10
3MPENTANE	3.5	0.2	0.6	1.02	0.98	0.99	47	4	8	29	2	5
HEXENE-1	1.1	0.0	0.1	0.32	0.00	0.17	14	0	1	9	0	1
N HEXANE	1.4	0.1	0.3	0.41	0.49	0.50	19	2	4	12	1	2
TC6=3,=2	1.6	0.0	0.2	0.47	0.00	0.33	21	0	2	13	0	2
CC6=3	0.5	0.0	0.0	0.15	0.00	0.00	7	0	0	4	0	0
2MPENTENE2	0.7	0.0	0.1	0.20	0.00	0.17	9	0	1	6	0	1
MCYP43M2C5	2.7	0.1	0.4	0.79	0.49	0.66	35	2	5	22	1	3
24MPENTANE	5.3	0.2	0.8	1.54	0.98	1.32	71	4	10	44	2	6
BENZENE	8.4	0.5	1.4	2.45	2.44	2.31	102	8	16	63	5	10
CYHEXANE	0.7	0.0	0.1	0.20	0.00	0.17	9	0	1	6	0	1
2MC6+23MC5	11.6	0.5	1.8	3.38	2.44	2.97	155	9	23	96	6	14
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.9	0.1	0.4	0.84	0.49	0.66	39	2	5	24	1	3
224MPENTAN	23.8	1.3	3.8	6.93	6.34	6.27	317	23	48	197	15	30
NHEPTANE	2.3	0.0	0.3	0.67	0.00	0.50	31	0	4	19	0	2
MCYHEXANE	1.4	0.1	0.2	0.41	0.49	0.33	18	2	2	11	1	2
25MHEXANE	2.2	0.1	0.3	0.64	0.49	0.50	29	2	4	18	1	2
24MC6+23JM	2.4	0.1	0.4	0.70	0.49	0.66	32	2	5	20	1	3
234MC5	6.0	0.2	0.8	1.75	0.98	1.32	80	4	10	50	2	6
TOLUENE	12.9	0.8	3.7	3.76	3.90	6.11	158	13	43	98	8	27
23MC6+4MC7	2.3	0.1	0.3	0.67	0.49	0.50	31	2	4	19	1	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50401
DATE RUN: 05 25 76
CAR: 1977 PLYMOUTH FURY 49S VIN: RL41G7A150083 DRIVER: L J WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.0	0.1	0.3	0.58	0.49	0.50	27	2	4	17	1	2
3MHEPTANE	1.9	0.1	0.2	0.55	0.49	0.33	25	2	3	16	1	2
255MC6	2.4	0.1	0.4	0.70	0.49	0.66	32	2	5	20	1	3
N OCTANE	0.7	0.0	0.1	0.20	0.00	0.17	9	0	1	6	0	1
223MC6	0.3	0.0	0.1	0.09	0.00	0.17	4	0	1	2	0	1
ETCYHEXANE	0.6	0.0	0.1	0.17	0.00	0.17	8	0	1	5	0	1
ET BENZENE	2.0	0.1	0.6	0.58	0.49	0.99	25	2	7	15	1	4
M+PXYLENE	7.3	0.4	3.1	2.13	1.95	5.12	90	7	36	56	4	23
24MC8	1.1	0.1	0.2	0.32	0.49	0.33	15	2	3	9	1	2
O XYLENE	2.9	0.1	1.2	0.84	0.49	1.98	36	2	14	22	1	9
N NONANE	1.1	0.0	0.1	0.32	0.00	0.17	15	0	1	9	0	1
IPRBENZENE	0.7	0.0	0.1	0.20	0.00	0.17	9	0	1	5	0	1
NPRBENZENE	0.4	0.0	0.1	0.12	0.00	0.17	5	0	1	3	0	1
1M3ETBENZ	2.5	0.1	1.1	0.73	0.49	1.82	31	2	13	19	1	8
135MEBENZ	0.9	0.1	0.4	0.26	0.49	0.66	11	2	5	7	1	3
1M2ETBENZ	1.3	0.1	0.2	0.38	0.49	0.33	16	2	2	10	1	1
124MBENZ	2.5	0.2	1.6	0.73	0.98	2.64	31	3	19	19	2	12
SBUBENZENE	0.3	0.0	0.0	0.09	0.00	0.00	4	0	0	2	0	0
N DECANE	0.1	0.0	0.0	0.03	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.3	0.0	0.3	0.09	0.00	0.50	4	0	4	2	0	2
INDANE	0.2	0.0	0.0	0.06	0.00	0.00	2	0	0	2	0	0
13EBENZENE	0.1	0.0	0.0	0.03	0.00	0.00	1	0	0	1	0	0
NBUBENZENE	0.4	0.0	0.2	0.12	0.00	0.33	5	0	2	3	0	1
1M3PRBENZ	0.5	0.0	0.3	0.15	0.00	0.50	6	0	4	4	0	2
UNKNOWNS	14.2	0.1	2.6	4.14	0.49	4.29	178	2	31	110	1	19

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50402
DATE RUN: 06 08 78
CAR: 1977 PLYMOUTH FURY 49S VIN: RL41G7A150083 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 40

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	1562.2	55.8	106.8
GC PPMC	1465.8	51.6	62.8

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	164.7	7.5	7.8	11.24	14.53	12.42	2279	151	170	1417	94	106
SATURATES	578.8	17.8	24.5	39.49	34.50	39.01	7172	321	479	4457	200	298
OLEFINS	231.9	11.3	16.2	15.82	21.90	25.80	2806	199	309	1744	124	192
ACETYLENE	171.8	0.6	1.3	11.72	1.16	2.07	1930	10	23	1199	6	14
NAPTHENES	26.5	0.7	0.8	1.81	1.36	1.27	321	12	15	199	8	9
AROMATICS	194.4	7.9	9.3	13.26	15.31	14.81	2209	131	167	1373	81	104
BENZENE	31.2	1.3	1.7	2.13	2.52	2.71	350	21	30	218	13	19
TOLUENE	49.6	2.0	2.6	3.38	3.88	4.14	564	33	47	350	21	29
C8+AROM	113.6	4.6	5.0	7.75	8.91	7.96	1312	77	91	816	48	57
UNKNOWN	97.7	5.8	2.9	0.00	0.00	0.00	1131	98	53	703	61	33
INDIVIDUAL COMPONENTS												
METHANE	164.7	7.5	7.8	11.24	14.53	12.42	2279	151	170	1417	94	106
ETHYLENE	105.5	5.7	7.9	7.20	11.05	12.58	1277	100	151	794	62	94
ETHANE	11.2	1.5	1.6	0.76	2.91	2.55	145	28	33	90	18	20
ACETYLENE	171.8	0.6	1.3	11.72	1.16	2.07	1930	10	23	1199	6	14
C3 + C3=	36.4	2.6	3.8	2.48	5.04	6.05	441	46	73	274	28	45
C=C=C	1.3	0.0	0.1	0.09	0.00	0.16	15	0	2	9	0	1
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	10.3	0.3	0.5	0.70	0.58	0.80	129	5	10	80	3	6
B1 + IB	14.0	1.4	2.1	0.96	2.71	3.34	169	25	40	105	15	25
NC4 +B=1=3	73.8	2.5	3.5	5.03	4.84	5.57	925	46	69	575	28	43
TBUTENE-2	6.3	0.2	0.3	0.43	0.39	0.48	76	4	6	47	2	4
22MPROPANE	0.3	0.0	0.0	0.02	0.00	0.00	4	0	0	2	0	0
CBUTENE-2	5.9	0.2	0.3	0.40	0.39	0.48	71	4	6	44	2	4
B=1=2	0.1	0.0	0.0	0.01	0.00	0.00	1	0	0	1	0	0
3MB1	1.8	0.1	0.1	0.12	0.19	0.16	22	2	2	14	1	1
ISOPENTANE	69.0	2.4	3.8	4.71	4.65	6.05	859	44	75	534	27	46
PENTENE-1	3.0	0.0	0.1	0.20	0.00	0.16	36	0	2	23	0	1
2MBUT-1	6.1	0.1	0.2	0.42	0.19	0.32	74	2	4	46	1	2
NPENTANE	11.4	0.5	0.5	0.78	0.97	0.80	142	9	10	88	6	6
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50402
DATE RUN: 06 06 78
CAR: 1977 PLYMOUTH FURY 49S VIN: RL41G7A150083 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	8.6	0.1	0.2	0.59	0.19	0.32	104	2	4	65	1	2
CISPENT-2	4.6	0.1	0.1	0.31	0.19	0.16	56	2	2	35	1	1
2MBUT-2	14.4	0.4	0.5	0.98	0.78	0.80	174	7	10	108	4	6
22MBUTANE	0.0	0.1	0.2	0.00	0.19	0.32	0	2	4	0	1	2
CYPENTENE	2.5	0.0	0.1	0.17	0.00	0.16	29	0	2	18	0	1
3MPENTENE	1.9	0.0	0.0	0.13	0.00	0.00	23	0	0	14	0	0
CYPENTANE	1.3	0.0	0.0	0.09	0.00	0.00	16	0	0	10	0	0
23MBUTANE	12.3	0.3	0.4	0.84	0.58	0.64	152	5	8	95	3	5
2MPENTANE	29.9	1.2	1.7	2.04	2.33	2.71	370	22	33	230	13	21
3MPENTANE	17.1	0.5	0.7	1.17	0.97	1.11	212	9	14	132	6	9
HEXENE-1	4.4	0.1	0.1	0.30	0.19	0.16	53	2	2	33	1	1
N HEXANE	7.0	0.2	0.3	0.48	0.39	0.48	87	4	6	54	2	4
TC6=3,=2	9.0	0.1	0.2	0.61	0.19	0.32	109	2	4	68	1	2
CC6=3	2.1	0.1	0.0	0.14	0.19	0.00	25	2	0	16	1	0
2MPENTENE2	4.0	0.1	0.1	0.27	0.19	0.16	48	2	2	30	1	1
MCYP43M2C5	12.7	0.3	0.4	0.87	0.58	0.64	154	5	8	96	3	5
24MPENTANE	25.4	0.7	0.9	1.73	1.36	1.43	314	13	18	195	8	11
BENZENE	31.2	1.3	1.7	2.13	2.52	2.71	350	21	30	218	13	19
CYHEXANE	2.5	0.1	0.1	0.17	0.19	0.16	30	2	2	19	1	1
2MC6+23MC5	56.2	1.3	1.9	3.83	2.52	3.03	694	23	37	431	15	23
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	13.2	0.3	0.4	0.90	0.58	0.64	163	5	8	101	3	5
224MPENTAN	109.7	3.1	4.2	7.48	6.01	6.69	1351	56	82	840	35	51
NHEPTANE	8.5	0.2	0.3	0.58	0.39	0.48	105	4	6	65	2	4
MCYHEXANE	6.7	0.2	0.2	0.46	0.39	0.32	81	4	4	50	2	2
25MHEXANE	15.7	0.2	0.3	1.07	0.39	0.48	193	4	6	120	2	4
24MC6+233M	21.4	0.3	0.5	1.46	0.58	0.80	264	5	10	164	3	6
234MC5	34.3	0.7	1.0	2.34	1.36	1.59	423	13	19	263	8	12
TOLUENE	49.6	2.0	2.6	3.38	3.88	4.14	564	33	47	350	21	29
23MC6+4MC7	1.1	0.3	0.4	0.08	0.58	0.64	14	5	8	8	3	5

EFFECT OF AMBILNT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTURS

TEST NO.: 50402
DATE RUN: 06 08 78
CAR: 1977 PLYMOUTH FURY 4VS VIN: RL41G7A150083 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	10.2	0.3	0.3	0.70	0.58	0.48	126	5	6	78	3	4
3MHEPTANE	10.4	0.2	0.2	0.71	0.39	0.32	128	4	4	80	2	2
255MC6	12.5	0.3	0.4	0.85	0.58	0.64	154	5	8	96	3	5
N OCTANE	3.3	0.1	0.1	0.23	0.19	0.16	41	2	2	25	1	1
223MC6	1.8	0.0	0.0	0.12	0.00	0.00	22	0	0	14	0	0
ETCYHEXANE	3.3	0.1	0.1	0.23	0.19	0.16	40	2	2	25	1	1
ET BENZENE	9.6	0.3	0.4	0.65	0.58	0.64	110	5	7	68	3	4
M+PXYLENE	31.3	1.2	1.6	2.14	2.33	2.55	358	20	29	223	12	18
24MC8	5.7	0.1	0.2	0.39	0.19	0.32	70	2	4	44	1	2
O XYLENE	13.4	0.5	0.7	0.91	0.97	1.11	153	8	13	95	5	8
N NONANE	6.2	0.2	0.2	0.42	0.39	0.32	76	4	4	47	2	2
IPRBENZENE	4.4	0.1	0.1	0.30	0.19	0.16	51	2	2	32	1	1
NPRBENZENE	2.9	0.1	0.1	0.20	0.19	0.16	33	2	2	21	1	1
1M3ETBENZ	12.2	0.5	0.6	0.83	0.97	0.96	141	8	11	87	5	7
135MEBENZ	4.8	0.2	0.2	0.33	0.39	0.32	55	3	4	34	2	2
1M2ETBENZ	7.6	0.3	0.2	0.52	0.58	0.32	88	5	4	54	3	2
124MBENZ	14.8	0.7	0.7	1.01	1.36	1.11	171	12	13	106	7	8
SBURENZENE	2.0	0.1	0.0	0.14	0.19	0.00	23	2	0	14	1	0
N DECANE	0.9	0.0	0.0	0.06	0.00	0.00	11	0	0	7	0	0
123MBENZ	2.8	0.1	0.1	0.19	0.19	0.16	32	2	2	20	1	1
INDANE	1.5	0.1	0.0	0.10	0.19	0.00	17	2	0	11	1	0
13ETBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBURENZENE	2.5	0.2	0.1	0.17	0.39	0.16	29	3	2	18	2	1
1M3PRBENZ	3.8	0.2	0.2	0.26	0.39	0.32	44	3	4	27	2	2
UNKNOWNS	97.7	5.8	2.9	6.67	11.24	4.62	1131	98	53	703	61	33

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50601
DATE RUN: 05 11 72
CAR: 1977 PLYMOUTH FURY 495 VIN: RL41G7A150083 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 60

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	270.3	33.1	87.8
GC PPMC	234.4	25.3	59.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	14.7	5.4	6.5	6.27	21.34	10.96	261	111	118	162	69	73
SATURATES	83.1	10.4	26.0	35.45	41.11	43.84	1320	192	421	820	119	262
OLEFINS	45.3	3.2	10.4	19.33	12.65	17.54	703	58	165	437	36	102
ACETYLENE	5.8	0.2	0.8	2.47	0.79	1.35	84	3	12	52	2	7
NAPTHENES	4.7	0.4	1.0	2.01	1.58	1.69	73	7	16	45	4	10
AROMATICS	66.6	4.7	11.9	28.41	18.58	20.07	970	79	177	603	49	110
BENZENE	7.8	0.9	1.6	3.33	3.56	3.04	112	15	26	70	9	16
TOLUENE	16.0	1.5	3.9	7.68	5.93	6.58	262	25	58	163	16	36
C8+AROM	40.8	2.3	6.2	17.41	9.09	10.46	604	39	94	376	25	58
UNKNOWN	14.2	1.0	2.7	0.00	0.00	0.00	211	17	41	131	11	25
INDIVIDUAL COMPONENTS												
METHANE	14.7	5.4	6.5	6.27	21.34	10.96	261	111	118	162	69	73
ETHYLENE	17.1	1.5	4.2	7.30	5.93	7.08	265	27	66	165	17	41
ETHANE	2.7	0.8	1.1	1.15	3.16	1.85	45	15	19	28	10	12
ACETYLENE	5.8	0.2	0.8	2.47	0.79	1.35	84	3	12	52	2	7
C3 + C3=	11.8	1.0	2.7	5.03	3.95	4.55	183	18	43	114	11	27
C=C=C	0.4	0.0	0.0	0.17	0.00	0.00	6	0	0	4	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.4	0.2	0.5	0.60	0.79	0.84	23	4	8	14	2	5
B1 + IB	6.7	0.5	1.5	2.86	1.98	2.53	104	9	24	65	6	15
NC4 +B=1=3	8.4	1.3	3.8	3.58	5.14	6.41	135	24	62	84	15	39
TBUTENE-2	1.0	0.1	0.2	0.43	0.40	0.34	16	2	3	10	1	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.8	0.0	0.2	0.34	0.00	0.34	12	0	3	8	0	2
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.3	0.0	0.1	0.13	0.00	0.17	5	0	2	3	0	1
ISOPENTANE	9.5	1.3	3.5	4.05	5.14	5.90	152	24	57	94	15	35
PENTENE-1	0.4	0.0	0.1	0.17	0.00	0.17	6	0	2	4	0	1
2MBUT-1	0.8	0.0	0.2	0.34	0.00	0.34	12	0	3	8	0	2
NPENTANE	1.8	0.3	0.6	0.77	1.19	1.01	29	6	10	18	3	6
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50601
DATE RUN: 05 11 78
CAR: 1977 PLYMOUTH FURY 4VS VIN: RL41[illegible]A150083 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
TPENT=2	0.9	0.0	0.2	0.38	0.00	0.34	14	0	3	9	0	2
CISPENT-2	0.4	0.0	0.1	0.17	0.00	0.17	6	0	2	4	0	1
2MBUT-2	1.7	0.1	0.5	0.73	0.40	0.84	26	2	8	16	1	5
22MBUTANE	0.1	0.6	0.1	0.04	2.37	0.17	2	11	2	1	7	1
CYPENTENE	0.3	0.0	0.0	0.13	0.00	0.00	5	0	0	3	0	0
3MPENTENE	0.5	0.0	0.0	0.21	0.00	0.00	8	0	0	5	0	0
CYPENTANE	1.3	0.2	0.1	0.55	0.79	0.17	20	4	2	13	2	1
23MBUTANE	2.2	0.3	0.6	0.94	1.19	1.01	35	6	10	22	3	6
2MPENTANE	4.1	0.5	1.3	1.75	1.98	2.19	65	9	21	40	6	13
3MPENTANE	2.3	0.2	0.7	0.98	0.79	1.18	37	4	11	23	2	7
HEXENE-1	0.6	0.0	0.1	0.26	0.00	0.17	9	0	2	6	0	1
N HEXANE	1.4	0.1	0.4	0.60	0.40	0.67	22	2	6	14	1	4
TC6=3,=2	0.9	0.0	0.2	0.38	0.00	0.34	14	0	3	9	0	2
CC6=3	0.3	0.0	0.0	0.13	0.00	0.00	5	0	0	3	0	0
2MPENTENE2	0.4	0.0	0.1	0.17	0.00	0.17	6	0	2	4	0	1
MCYP4,3M2C5	1.7	0.1	0.5	0.73	0.40	0.84	26	2	8	16	1	5
24MPENTANE	3.1	0.3	0.9	1.32	1.19	1.52	49	6	15	31	3	9
BENZENE	7.8	0.9	1.8	3.33	3.56	3.04	112	15	26	70	9	16
CYHEXANE	0.4	0.0	0.1	0.17	0.00	0.17	6	0	2	4	0	1
2MC6+23MC5	7.4	0.8	2.1	3.16	3.16	3.54	117	15	34	73	9	21
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.3	0.2	0.6	0.98	0.79	1.01	36	4	10	23	2	6
224MPENTAN	16.3	1.9	4.8	6.95	7.51	8.09	257	35	77	160	22	48
NHEPTANE	2.1	0.1	0.5	0.90	0.40	0.84	33	2	8	21	1	5
MCYHEXANE	0.8	0.1	0.2	0.34	0.40	0.34	12	2	3	8	1	2
25MHEXANE	1.5	0.1	0.4	0.64	0.40	0.67	24	2	6	15	1	4
24MC6+233M	1.7	0.2	0.5	0.73	0.79	0.84	27	4	8	17	2	5
234MC5	4.7	0.4	1.1	2.01	1.58	1.85	74	7	18	46	5	11
TOLUENE	18.0	1.5	3.9	7.68	5.93	6.58	282	25	58	163	16	36
23MC6+4MC7	1.8	0.2	0.5	0.77	0.79	0.84	28	4	8	18	2	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50601
DATE RUN: 05 11 78
CAR: 1977 PLYMOUTH FURY 49S VIN: RL41G7A150083 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.9	0.2	0.5	0.81	0.79	0.84	30	4	8	19	2	5
3MHEPTANE	1.7	0.1	0.5	0.73	0.40	0.84	27	2	8	17	1	5
25MHC6	1.5	0.1	0.4	0.64	0.40	0.67	24	2	6	15	1	4
N OCTANE	1.0	0.1	0.2	0.43	0.40	0.34	16	2	3	10	1	2
223MHC6	0.2	0.0	0.0	0.09	0.00	0.00	3	0	0	2	0	0
ETCYHEXANE	0.5	0.0	0.1	0.21	0.00	0.17	8	0	2	5	0	1
ET BENZENE	3.5	0.2	0.6	1.49	0.79	1.01	51	3	9	32	2	6
M+PXYLENE	13.3	0.9	2.2	5.67	3.56	3.71	195	15	33	121	10	20
2+4MHC8	1.2	0.1	0.3	0.51	0.40	0.51	19	2	5	12	1	3
O XYLENE	5.1	0.3	0.9	2.18	1.19	1.52	75	5	13	47	3	8
N NONANE	0.7	0.0	0.1	0.30	0.00	0.17	11	0	2	7	0	1
IPRBENZENE	0.6	0.1	0.1	0.26	0.40	0.17	9	2	2	6	1	1
NPRBENZENE	1.0	0.0	0.1	0.43	0.00	0.17	15	0	2	9	0	1
1M3ETBENZ	5.1	0.3	0.6	2.18	1.19	1.01	75	5	9	47	3	6
135MEBENZ	1.8	0.1	0.2	0.77	0.40	0.34	27	2	3	17	1	2
1M2ETBENZ	1.0	0.0	0.1	0.43	0.00	0.17	15	0	2	9	0	1
124MBENZ	5.7	0.3	0.8	2.43	1.19	1.35	84	5	12	52	3	7
SBUBENZENE	0.4	0.0	0.1	0.17	0.00	0.17	6	0	2	4	0	1
N DECANE	0.1	0.0	0.0	0.04	0.00	0.00	2	0	0	1	0	0
123MBENZ	1.2	0.1	0.2	0.51	0.40	0.34	18	2	3	11	1	2
INDANE	0.2	0.0	0.0	0.09	0.00	0.00	3	0	0	2	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.7	0.0	0.1	0.30	0.00	0.17	10	0	2	6	0	1
1M3PRBENZ	1.2	0.0	0.2	0.51	0.00	0.34	16	0	3	11	0	2
UNKNOWNS	14.2	1.0	2.7	6.06	3.95	4.55	211	17	41	131	11	25

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50602
DATE RUN: 05 24 78
CAR: 1977 PLYMOUTH FURY 49S VIN: RL41G7A150083 DRIVER: L J WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 60

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	806.8	39.4	78.0
GC PPMC	726.6	31.8	62.0

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	44.0	6.9	7.5	6.06	21.70	12.10	677	157	119	421	97	74
SATURATES	343.6	12.1	21.0	47.29	38.05	33.87	4736	246	299	2944	153	186
OLEFINS	94.6	4.3	10.6	13.02	13.52	17.10	1274	85	147	792	53	91
ACETYLENE	40.9	0.6	1.4	5.63	1.89	2.26	511	11	18	318	7	11
NAPTHENES	15.3	0.4	0.5	2.11	1.26	0.81	206	8	7	128	5	4
AROMATICS	145.1	5.7	12.3	19.97	17.92	19.84	1835	106	160	1140	66	100
BENZENE	19.4	1.0	1.8	2.67	3.14	2.90	242	18	23	151	11	14
TOLUENE	51.2	1.8	3.5	7.05	5.66	5.65	647	34	46	402	21	28
C8+AROM	74.5	2.9	7.0	10.25	9.12	11.29	957	55	93	595	34	58
UNKNOWN	43.1	1.8	8.7	0.00	0.00	0.00	555	34	116	345	21	72
INDIVIDUAL COMPONENTS												
METHANE	44.0	6.9	7.5	6.06	21.70	12.10	677	157	119	421	97	74
ETHYLENE	34.8	2.3	5.3	4.79	7.23	8.55	469	46	74	291	28	46
ETHANE	4.7	1.6	1.9	0.65	5.03	3.06	68	34	28	42	21	18
ACETYLENE	40.9	0.6	1.4	5.63	1.89	2.26	511	11	18	318	7	11
C3 + C3=	15.6	1.2	2.8	2.15	3.77	4.52	210	24	39	131	15	24
C=C=C	0.3	0.0	0.0	0.04	0.00	0.00	4	0	0	2	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	3.0	0.3	0.3	0.41	0.94	0.48	42	6	4	26	4	3
B1 + 1B	9.9	0.6	1.5	1.36	1.49	2.42	133	12	21	83	7	13
NC4 +B=1=3	30.7	1.6	2.7	4.23	5.03	4.35	428	33	39	266	20	24
TBUTENE-2	2.0	0.1	0.2	0.28	0.31	0.32	27	2	3	17	1	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.7	0.0	0.1	0.23	0.00	0.16	23	0	1	14	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.8	0.0	0.1	0.11	0.00	0.16	11	0	1	7	0	1
ISOPENTANE	36.8	1.3	2.2	5.06	4.09	3.55	510	27	31	317	17	20
PENTENE-1	1.4	0.0	0.0	0.19	0.00	0.00	19	0	0	12	0	0
2MBUT-1	3.1	0.0	0.1	0.43	0.00	0.16	42	0	1	26	0	1
NPENTANE	6.5	0.2	0.4	0.89	0.63	0.65	90	4	6	56	3	4
2MB=1=3	0.3	0.0	0.0	0.04	0.00	0.00	4	0	0	2	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50602
DATE RUN: 05 24 78
CAR: 1977 PLYMOUTH FURY 4VS VIN: RL41G7A150083 DRIVEN: L J WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	4.0	0.0	0.1	0.55	0.00	0.16	54	0	1	33	0	1
CISPENT-2	2.0	0.0	0.0	0.28	0.00	0.00	27	0	0	17	0	0
2MBUT-2	7.2	0.1	0.3	0.99	0.31	0.48	97	2	4	60	1	3
22MBUTANE	0.8	0.0	0.1	0.11	0.00	0.16	11	0	1	7	0	1
CYPENTENE	0.9	0.0	0.0	0.12	0.00	0.00	12	0	0	7	0	0
3MPENTENE	0.8	0.0	0.0	0.11	0.00	0.00	11	0	0	7	0	0
CYPENTANE	0.9	0.0	0.0	0.12	0.00	0.00	12	0	0	8	0	0
23MBUTANE	8.9	0.2	0.7	1.22	0.63	1.13	123	4	10	76	3	6
2MPENTANE	16.7	0.5	0.9	2.30	1.57	1.45	230	10	13	143	6	8
3MPENTANE	10.2	0.3	0.4	1.40	0.94	0.65	141	6	6	87	4	4
HEXENE-1	2.2	0.0	0.0	0.30	0.00	0.00	30	0	0	18	0	0
N HEXANE	7.0	0.2	0.3	0.96	0.63	0.48	96	4	4	60	3	3
TC6=3=2	4.3	0.0	0.1	0.59	0.00	0.16	58	0	1	36	0	1
CC6=3	1.2	0.0	0.0	0.17	0.00	0.00	16	0	0	10	0	0
2MPENTENE2	2.1	0.0	0.0	0.29	0.00	0.00	28	0	0	18	0	0
MCYP43M2C5	7.8	0.2	0.3	1.07	0.63	0.48	105	4	4	65	2	3
24MPENTANE	16.0	0.4	0.6	2.20	1.26	0.97	220	8	9	137	5	5
BENZENE	19.4	1.0	1.8	2.67	3.14	2.90	242	16	23	151	11	14
CYHEXANE	1.4	0.0	0.0	0.19	0.00	0.00	19	0	0	12	0	0
2MC6+23MC5	36.4	0.9	1.4	5.01	2.83	2.26	500	18	20	311	11	12
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	11.9	0.3	0.5	1.64	0.94	0.81	164	6	7	102	4	4
224MPNTAN	70.3	2.2	3.2	9.68	6.92	5.16	963	44	45	599	28	28
NHEPTANE	10.8	0.2	0.4	1.49	0.63	0.65	148	4	6	92	3	4
MCYHEXANE	3.2	0.1	0.1	0.44	0.31	0.16	43	2	1	27	1	1
25MHEXANE	6.3	0.2	0.2	0.87	0.63	0.32	86	4	3	54	3	2
24MC6+233M	7.1	0.2	0.7	0.98	0.63	1.13	97	4	10	60	3	6
234MC5	19.3	0.4	0.7	2.66	1.26	1.13	265	8	10	164	5	6
TOLUENE	51.2	1.8	3.5	7.05	5.66	5.65	647	34	46	402	21	28
23MC6+4MC7	7.1	0.2	0.4	0.98	0.63	0.65	97	4	6	60	3	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50602
DATE RUN: 05 24 78
CAR: 1977 PLYMOUTH FURY 49S VIN: RL41G7A150083 DRIVER: L J WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	8.3	0.2	0.4	1.14	0.63	0.65	114	4	6	71	3	4
3MHEPTANE	7.7	0.2	0.3	1.06	0.63	0.48	106	4	4	66	3	3
255MC6	6.5	0.2	0.3	0.89	0.63	0.48	89	4	4	55	3	3
N OCTANE	4.2	0.1	0.5	0.58	0.31	0.81	58	2	7	36	1	4
223MC6	0.8	0.0	0.0	0.11	0.00	0.00	11	0	0	7	0	0
ETCYHEXANE	2.0	0.1	0.1	0.28	0.31	0.16	27	2	1	17	1	1
ET BENZENE	7.5	0.3	0.7	1.03	0.94	1.13	96	6	9	59	4	6
M+PXYLENE	25.2	0.9	3.7	3.47	2.83	5.97	321	17	49	200	11	30
2+4MC8	3.4	0.1	1.4	0.47	0.31	2.26	47	2	20	29	1	12
O XYLENE	9.6	0.4	0.6	1.32	1.26	0.97	122	8	8	76	5	5
N NONANE	2.0	0.1	0.1	0.28	0.31	0.16	27	2	1	17	1	1
IPRBENZENE	2.2	0.1	0.1	0.30	0.31	0.16	28	2	1	18	1	1
NPRBENZENE	1.9	0.0	0.1	0.26	0.00	0.16	24	0	1	15	0	1
1M3ETBENZ	7.1	0.3	0.5	0.98	0.94	0.81	91	6	7	57	4	4
135MEBENZ	3.0	0.1	0.2	0.41	0.31	0.32	38	2	3	24	1	2
1M2ETBENZ	2.9	0.1	0.1	0.40	0.31	0.16	37	2	1	23	1	1
124MBENZ	8.8	0.4	0.7	1.21	1.26	1.13	113	8	9	70	5	6
SBUBENZENE	1.0	0.0	0.0	0.14	0.00	0.00	13	0	0	8	0	0
N DECANE	0.2	0.0	0.0	0.03	0.00	0.00	3	0	0	2	0	0
123MBENZ	1.6	0.1	0.1	0.22	0.31	0.16	21	2	1	13	1	1
INDANE	0.5	0.0	0.0	0.07	0.00	0.00	6	0	0	4	0	0
13EBENZENE	0.1	0.0	0.0	0.01	0.00	0.00	1	0	0	1	0	0
NBUBENZENE	1.2	0.1	0.1	0.17	0.31	0.16	15	2	1	10	1	1
1M3PRBENZ	1.9	0.1	0.1	0.26	0.31	0.16	24	2	1	15	1	1
UNKNOWNS	43.1	1.8	8.7	5.93	5.66	14.03	555	34	116	345	21	72

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO&: 50603
DATE RUN: 06 09 76
CAR: 1977 PLYMOUTH FURY 495 VIN: RL41G7A150083 DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 60

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	464.8	35.9	90.6
GC PPMC	453.2	29.5	94.4

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	45.4	6.7	7.4	10.02	22.71	7.84	601	130	89	374	81	55
SATURATES	145.1	10.2	32.1	32.02	34.58	34.00	1721	177	346	1069	110	215
OLEFINS	83.3	4.7	30.5	18.38	15.93	32.31	965	80	321	600	50	200
ACETYLENE	39.2	0.3	6.1	8.65	1.02	6.46	421	5	60	262	3	37
NAPTHENES	5.8	0.2	0.6	1.28	0.68	0.64	67	3	6	42	2	4
AROMATICS	109.5	6.4	14.9	24.16	21.70	15.78	1191	102	147	740	63	92
BENZENE	15.8	1.2	2.5	3.49	4.07	2.65	170	19	24	106	12	15
TOLUENE	32.7	1.9	5.0	7.22	6.44	5.30	356	30	49	221	19	31
C8+AROM	61.0	3.3	7.4	13.46	11.19	7.84	674	54	74	419	33	46
UNKNOWN	24.9	1.0	2.8	0.00	0.00	0.00	276	16	28	172	10	18
INDIVIDUAL COMPONENTS												
METHANE	45.4	6.7	7.4	10.02	22.71	7.84	601	130	89	374	81	55
ETHYLENE	48.7	2.7	23.3	9.20	9.15	24.68	483	46	245	300	29	153
ETHANE	5.2	1.1	9.0	1.15	3.73	9.53	65	20	102	40	12	63
ACETYLENE	39.2	0.3	6.1	8.65	1.02	6.46	421	5	60	262	3	37
C3 + C3=	17.1	1.2	3.4	3.77	4.07	3.60	198	20	36	123	13	22
C=C=C	0.6	0.0	0.0	0.13	0.00	0.00	7	0	0	4	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.7	0.1	0.3	0.38	0.34	0.32	20	2	3	13	1	2
B1 + IB	10.3	0.6	1.9	2.27	2.03	2.01	119	10	20	74	6	12
NC4 +B=1=3	13.0	1.3	3.1	2.87	4.41	3.28	156	23	34	97	14	21
TBUTENE-2	1.2	0.1	0.2	0.26	0.34	0.21	14	2	2	9	1	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.0	0.0	0.2	0.22	0.00	0.21	12	0	2	7	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.5	0.0	0.1	0.11	0.00	0.11	6	0	1	4	0	1
ISOPENTANE	12.6	1.3	3.5	2.78	4.41	3.71	150	23	38	93	14	24
PENTENE-1	0.6	0.0	0.1	0.13	0.00	0.11	7	0	1	4	0	1
2MBUT-1	1.3	0.0	0.2	0.29	0.00	0.21	15	0	2	9	0	1
NPENTANE	2.2	0.2	0.4	0.49	0.68	0.42	26	3	4	16	2	3
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50603
DATE RUN: 06 09 78
CAR: 1977 PLYMOUTH FURY 4VS VIN: RL41G7A150083 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.2	0.0	0.2	0.26	0.00	0.21	14	0	2	9	0	1
CISPENT-2	0.6	0.0	0.1	0.13	0.00	0.11	7	0	1	4	0	1
2MBUT-2	2.6	0.1	0.4	0.57	0.34	0.42	30	2	4	19	1	3
22MBUTANE	0.2	0.0	0.1	0.04	0.00	0.11	2	0	1	1	0	1
CYPENTENE	0.3	0.0	0.0	0.07	0.00	0.00	3	0	0	2	0	0
3MPENTENE	0.3	0.0	0.0	0.07	0.00	0.00	3	0	0	2	0	0
CYPENTANE	0.2	0.0	0.0	0.04	0.00	0.00	2	0	0	1	0	0
23MBUTANE	3.1	0.2	0.4	0.68	0.68	0.42	37	3	4	23	2	3
2MPENTANE	9.2	1.0	2.1	2.03	3.39	2.22	109	17	23	68	11	14
3MPENTANE	3.6	0.2	0.5	0.79	0.68	0.53	43	3	5	27	2	3
HEXENE-1	1.2	0.0	0.1	0.26	0.00	0.11	14	0	1	9	0	1
N HEXANE	2.5	0.1	0.4	0.55	0.34	0.42	30	2	4	18	1	3
TC6=3,=2	1.5	0.0	0.2	0.33	0.00	0.21	17	0	2	11	0	1
CC6=3	0.6	0.0	0.0	0.13	0.00	0.00	7	0	0	4	0	0
2MPENTENE2	0.7	0.0	0.1	0.15	0.00	0.11	8	0	1	5	0	1
MCYP43M2C5	2.7	0.1	0.3	0.60	0.34	0.32	31	2	3	19	1	2
24MPENTANE	5.8	0.3	0.9	1.28	1.02	0.95	69	5	10	43	3	6
BENZENE	15.8	1.2	2.5	3.49	4.07	2.65	170	19	24	106	12	15
CYHEXANE	0.6	0.0	0.1	0.13	0.00	0.11	7	0	1	4	0	1
2MC6+23MC5	13.6	0.7	1.9	3.00	2.37	2.01	161	12	20	100	8	13
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	4.9	0.2	0.7	1.08	0.68	0.74	58	3	8	36	2	5
224MPENTAN	27.8	1.7	4.0	6.13	5.76	4.24	328	29	43	204	18	27
NHEPTANE	4.6	0.2	0.5	1.02	0.68	0.53	54	3	5	34	2	3
MCYHEXANE	1.1	0.1	0.1	0.24	0.34	0.11	13	2	1	8	1	1
25MHEXANE	3.6	0.1	0.3	0.79	0.34	0.32	42	2	3	26	1	2
24MC6+233M	2.9	0.2	0.5	0.64	0.68	0.53	34	3	5	21	2	3
234MC5	7.7	0.3	0.9	1.70	1.02	0.95	91	5	10	56	3	6
TOLUENE	32.7	1.9	5.0	7.22	6.44	5.30	386	30	49	221	19	31
23MC6+4MC7	3.3	0.2	0.5	0.73	0.68	0.53	39	3	5	24	2	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50603
DATE RUN: 06 09 78
CAR: 1977 PLYMOUTH FURY 495 VIN: RL41G7A150083 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	4.1	0.2	0.5	0.90	0.68	0.53	48	3	5	30	2	3
3MHEPTANE	3.7	0.2	0.5	0.82	0.68	0.53	44	3	5	27	2	3
255MC6	3.5	0.2	0.4	0.77	0.68	0.42	41	3	4	26	2	3
N OCTANE	2.4	0.1	0.3	0.53	0.34	0.32	28	2	3	18	1	2
223MC6	0.4	0.0	0.0	0.09	0.00	0.00	5	0	0	3	0	0
ETCYHEXANE	1.2	0.0	0.1	0.26	0.00	0.11	14	0	1	9	0	1
ET BENZENE	6.2	0.3	0.7	1.37	1.02	0.74	68	5	7	42	3	4
M+PXYLENE	20.4	1.1	2.8	4.50	3.73	2.97	224	18	28	139	11	17
2+4MC8	2.1	0.1	0.3	0.46	0.34	0.32	25	2	3	15	1	2
O XYLENE	7.4	0.4	1.0	1.63	1.36	1.06	81	6	10	50	4	6
N NONANE	1.2	0.0	0.1	0.26	0.00	0.11	14	0	1	9	0	1
IPRBENZENE	1.4	0.1	0.1	0.31	0.34	0.11	15	2	1	10	1	1
NPRBENZENE	1.5	0.0	0.1	0.33	0.00	0.11	17	0	1	10	0	1
1M3ETBENZ	0.4	0.4	0.8	1.41	1.36	0.85	71	6	8	44	4	5
135MEBENZ	2.7	0.1	0.2	0.60	0.34	0.21	30	2	2	19	1	1
1M2ETBENZ	2.1	0.1	0.2	0.46	0.34	0.21	23	2	2	14	1	1
124MBENZ	7.8	0.5	1.0	1.72	1.69	1.06	86	8	10	53	5	6
SBUBENZENE	0.7	0.0	0.0	0.15	0.00	0.00	8	0	0	5	0	0
N DECANE	0.2	0.0	0.0	0.04	0.00	0.00	2	0	0	1	0	0
123MBENZ	1.4	0.1	0.2	0.31	0.34	0.21	15	2	2	10	1	1
INDANE	0.3	0.0	0.0	0.07	0.00	0.00	3	0	0	2	0	0
13FBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	1.0	0.1	0.1	0.22	0.34	0.11	11	2	1	7	1	1
1M3PRBENZ	1.7	0.1	0.2	0.38	0.34	0.21	19	2	2	12	1	1
UNKNOWNS	24.9	1.0	2.8	5.49	3.39	2.97	276	16	28	172	10	18

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50701
DATE RUN: 05 12 78
CAR: 1977 PLYMOUTH FURY 4VS VIN: RL41C7A150OPJ DRIVER: MYER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 70

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	109.1	13.9	36.7
GC PPMC	251.6	29.8	72.5

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	31.3	7.8	8.0	12.44	26.17	11.03	161	31	43	100	19	27
SATURATES	77.4	9.4	30.5	30.76	31.54	42.07	356	33	147	221	20	91
OLEFINS	60.0	5.8	16.0	23.85	19.46	22.07	270	20	75	168	12	47
ACETYLENE	22.8	0.3	1.2	9.06	1.01	1.66	95	1	5	59	1	3
NAPTHENES	3.5	0.2	1.3	1.39	0.67	1.79	16	1	6	10	0	4
AROMATICS	47.8	5.2	13.2	19.00	17.45	18.21	202	17	58	125	10	36
BENZENE	8.5	1.2	2.3	3.38	4.03	3.17	35	4	10	22	2	6
TOLUENE	15.5	1.7	4.4	6.16	5.70	6.07	65	5	19	41	3	12
C8+AROM	23.8	2.3	6.5	9.46	7.72	8.97	102	8	29	63	5	18
UNKNOWN	6.8	1.1	2.3	0.00	0.00	0.00	38	4	10	24	2	6
INDIVIDUAL COMPONENTS												
METHANE	31.3	7.8	8.0	12.44	26.17	11.03	161	31	43	100	19	27
ETHYLENE	29.9	3.4	7.2	11.88	11.41	9.93	134	12	34	84	7	21
ETHANE	4.2	1.1	1.5	1.67	3.69	2.07	20	4	8	13	3	5
ACETYLENE	22.8	0.3	1.2	9.06	1.01	1.66	95	1	5	59	1	3
C3 + C3=	13.1	1.4	3.7	5.21	4.70	5.10	59	5	17	37	3	11
C=C=C	0.4	0.0	0.1	0.16	0.00	0.14	2	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.9	0.1	0.7	0.30	0.34	0.97	4	0	3	3	0	2
B1 + IB	7.8	0.7	2.0	3.10	2.35	2.76	35	2	9	22	1	6
NC4 +B=1=3	6.9	1.1	4.6	2.74	3.69	6.34	32	4	22	20	2	14
TBUTENE-2	1.1	0.1	0.3	0.44	0.34	0.41	5	0	1	3	0	1
22MPNPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.8	0.1	0.2	0.32	0.34	0.28	4	0	1	2	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.3	0.0	0.1	0.12	0.00	0.14	1	0	0	1	0	0
ISOPENTANE	6.5	1.1	4.1	2.58	3.69	5.66	30	4	20	19	2	12
PENTENE-1	0.3	0.0	0.1	0.12	0.00	0.14	1	0	0	1	0	0
2MBUT-1	0.8	0.0	0.3	0.32	0.00	0.41	4	0	1	2	0	1
NPENTANE	1.3	0.2	0.7	0.52	0.67	0.97	6	1	3	4	0	2
2MB=1=3	0.4	0.0	0.0	0.16	0.00	0.00	2	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50701
DATE RUN: 05 12 78
CAR: 1977 PLYMOUTH FURY 495 VIN: RL41G7A150063 DRIVER: MYER FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
TPENT-2	0.8	0.0	0.3	0.32	0.00	0.41	4	0	1	2	0	1
CISPENT-2	0.4	0.0	0.1	0.16	0.00	0.14	2	0	0	1	0	0
2MBUT-2	1.6	0.1	0.7	0.64	0.34	0.97	7	0	3	4	0	2
22MBUTANE	3.6	0.2	0.2	1.43	0.67	0.28	17	1	1	10	0	1
CYPENTENE	0.2	0.0	0.1	0.08	0.00	0.14	1	0	0	1	0	0
3MPENTENE	0.1	0.0	0.1	0.04	0.00	0.14	0	0	0	0	0	0
CYPENTANE	0.3	0.0	0.4	0.12	0.00	0.55	1	0	2	1	0	1
23MBUTANE	2.3	0.1	0.8	0.91	0.34	1.10	11	0	4	7	0	2
2MPENTANE	3.3	0.5	1.4	1.31	1.68	1.93	15	2	7	9	1	4
3MPENTANE	1.9	0.2	0.8	0.76	0.67	1.10	9	1	4	5	0	2
HEXENE-1	0.5	0.0	0.2	0.20	0.00	0.28	2	0	1	1	0	1
N HEXANE	1.2	0.1	0.5	0.48	0.34	0.69	6	0	2	3	0	1
TC6=3,=2	0.9	0.0	0.3	0.36	0.00	0.41	4	0	1	3	0	1
CC6=3	0.2	0.0	0.1	0.08	0.00	0.14	1	0	0	1	0	0
2MPENTENE2	0.4	0.0	0.1	0.16	0.00	0.14	2	0	0	1	0	0
MCYP4,M2C5	1.5	0.1	0.5	0.60	0.34	0.69	7	0	2	4	0	1
24MPENTANE	2.8	0.3	1.1	1.11	1.01	1.52	13	1	5	8	1	3
BENZENE	8.5	1.2	2.3	3.38	4.03	3.17	35	4	10	22	2	6
CYHEXANE	0.4	0.0	0.1	0.16	0.00	0.14	2	0	0	1	0	0
2MC6+23MC5	6.8	0.7	2.4	2.70	2.35	3.31	31	2	12	19	2	7
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.1	0.2	0.7	0.83	0.67	0.97	10	1	3	6	0	2
224MPENTAN	15.0	1.8	5.2	5.96	6.04	7.17	69	6	25	43	4	15
MHEPTANE	2.1	0.1	0.6	0.83	0.34	0.83	10	0	3	6	0	2
MCYHEXANE	0.8	0.1	0.2	0.32	0.34	0.28	4	0	1	2	0	1
25MHEXANE	1.4	0.1	0.4	0.56	0.34	0.55	6	0	2	4	0	1
24MC6+233M	1.6	0.2	0.6	0.64	0.67	0.83	7	1	3	5	0	2
234MC5	4.1	0.4	1.3	1.63	1.34	1.79	19	1	6	12	1	4
TOLUENE	15.5	1.7	4.4	6.16	5.70	6.07	65	5	19	41	3	12
23MC6+4MC7	1.7	0.2	0.6	0.66	0.67	0.83	8	1	3	5	0	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50701
DATE RUN: 05 12 78
CAR: 1977 PLYMOUTH FURY 49S VIN: RL41G7A150083 DRIVER: MYER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.9	0.2	0.6	0.76	0.67	0.83	9	1	3	5	0	2
3MHEPTANE	1.7	0.1	0.5	0.68	0.34	0.69	8	0	2	5	0	1
255MC6	1.4	0.1	0.5	0.56	0.34	0.69	6	0	2	4	0	1
N OCTANE	0.9	0.1	0.3	0.36	0.34	0.41	4	0	1	3	0	1
223MC6	0.2	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.5	0.0	0.1	0.20	0.00	0.14	2	0	0	1	0	0
ET BENZENE	2.5	0.2	0.6	0.99	0.67	0.83	11	1	3	7	0	2
M+PXYLENE	8.6	0.8	2.3	3.42	2.68	3.17	37	3	10	23	2	6
244MC8	1.0	0.1	0.2	0.40	0.34	0.28	5	0	1	3	0	1
O XYLENE	3.2	0.3	0.9	1.27	1.01	1.24	14	1	4	8	1	2
N NONANE	0.6	0.1	0.2	0.24	0.34	0.28	3	0	1	2	0	1
IPRBENZENE	0.5	0.1	0.2	0.20	0.34	0.28	2	0	1	1	0	1
NPRBENZENE	0.5	0.0	0.0	0.20	0.00	0.00	2	0	0	1	0	0
1M3ETBENZ	2.5	0.2	0.7	0.99	0.67	0.97	11	1	3	7	0	2
135MEBENZ	0.9	0.1	0.3	0.36	0.34	0.41	4	0	1	2	0	1
1M2ETHENZ	0.7	0.1	0.2	0.28	0.34	0.28	3	0	1	2	0	1
124MBENZ	2.6	0.3	0.8	1.03	1.01	1.10	11	1	4	7	1	2
SBUBENZENE	0.2	0.0	0.1	0.08	0.00	0.14	1	0	0	1	0	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.5	0.0	0.1	0.20	0.00	0.14	2	0	0	1	0	0
INDANE	0.1	0.0	0.0	0.04	0.00	0.00	0	0	0	0	0	0
1SEBENZENE	0.1	0.0	0.0	0.04	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.4	0.1	0.1	0.16	0.34	0.14	2	0	0	1	0	0
1M3PRBENZ	0.5	0.1	0.2	0.20	0.34	0.28	2	0	1	1	0	1
UNKNOWNS	8.8	1.1	2.3	3.50	3.69	3.17	38	4	10	24	2	6

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50702
DATE RUN: 05 23 76
CAR: 1977 PLYMOUTH FURY 49S VIN: RL41G7A150083 DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 70

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	517.1	66.3	93.3
GC PPMC	413.9	56.2	74.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	40.1	9.6	9.4	9.69	17.08	12.65	656	211	147	408	131	91
SATURATES	128.8	16.9	26.4	31.12	30.07	35.53	1886	332	369	1172	207	229
OLEFINS	73.6	12.6	15.9	17.78	22.42	21.40	1053	242	217	654	150	135
ACETYLENE	39.8	0.6	2.4	9.62	1.07	3.23	528	11	30	328	7	19
NAPTHENES	6.7	0.5	0.8	1.62	0.89	1.08	96	10	11	60	6	7
AROMATICS	100.4	13.7	16.3	24.26	24.38	21.94	1349	247	209	838	154	130
BENZENE	12.6	2.9	2.8	3.04	5.16	3.77	167	52	35	104	32	22
TOLUENE	29.9	4.4	5.2	7.22	7.83	7.00	402	79	67	250	49	41
C8+AROM	57.9	6.4	8.3	13.99	11.39	11.17	791	117	108	491	73	67
UNKNOWN	24.5	2.3	3.1	0.00	0.00	0.00	335	42	41	208	26	25
INDIVIDUAL COMPONENTS												
METHANE	40.1	9.6	9.4	9.69	17.08	12.65	656	211	147	408	131	91
ETHYLENE	33.3	6.9	7.6	8.05	12.28	10.23	476	133	104	296	82	65
ETHANE	4.6	2.2	2.6	1.11	3.91	3.50	71	45	38	44	28	24
ACETYLENE	39.3	0.6	2.4	9.50	1.07	3.23	522	11	30	324	7	19
C3 + C3=	16.3	3.1	4.0	3.94	5.52	5.38	233	60	55	145	37	34
C=C=C	0.6	0.0	0.1	0.14	0.00	0.13	8	0	1	5	0	1
METHACETYL	0.5	0.0	0.0	0.12	0.00	0.00	7	0	0	4	0	0
ISOBUTANE	1.2	0.2	0.4	0.29	0.36	0.54	18	4	6	11	2	4
B1 + 1B	9.7	1.6	2.1	2.34	2.85	2.83	139	31	29	86	19	18
NC4 +B=1=3	10.7	1.5	3.5	2.59	2.67	4.71	159	30	50	99	19	31
TBUTENE-2	1.1	0.2	0.3	0.27	0.36	0.40	16	4	4	10	2	3
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.9	0.2	0.2	0.22	0.36	0.27	13	4	3	8	2	2
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.4	0.0	0.1	0.10	0.00	0.13	6	0	1	4	0	1
ISOPENTANE	9.7	1.3	2.8	2.34	2.31	3.77	143	26	39	89	16	24
PENTENE-1	0.6	0.0	0.1	0.14	0.00	0.13	9	0	1	5	0	1
2MBUT-1	1.3	0.1	0.2	0.31	0.18	0.27	19	2	3	12	1	2
NPENTANE	1.8	0.3	0.5	0.43	0.53	0.67	26	6	7	16	4	4
2MB=1=3	0.9	0.0	0.0	0.22	0.00	0.00	13	0	0	8	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50702
DATE RUN: 05 23 76
CAR: 1977 PLYMOUTH FURY 49S VIN: RL41G7A150083 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT-2	1.3	0.1	0.2	0.31	0.18	0.27	19	2	3	12	1	2
CISPENT-2	0.6	0.0	0.1	0.14	0.00	0.13	9	0	1	5	0	1
2MBUT-2	2.4	0.3	0.5	0.58	0.53	0.67	34	6	7	21	4	4
22MBUTANE	0.2	1.1	0.1	0.05	1.96	0.13	3	22	1	2	13	1
CYPENTENE	0.6	0.0	0.1	0.14	0.00	0.13	8	0	1	5	0	1
3MPENTENE	0.5	0.0	0.0	0.12	0.00	0.00	7	0	0	4	0	0
CYPENTANE	0.4	0.1	0.0	0.10	0.18	0.00	6	2	0	4	1	0
23MBUTANE	2.4	0.4	0.5	0.56	0.71	0.67	35	8	7	22	5	4
2MPENTANE	5.3	0.6	1.2	1.28	1.07	1.62	78	12	17	48	7	10
3MPENTANE	3.8	0.3	0.6	0.92	0.53	0.81	56	6	8	35	4	5
HEXENE-1	0.8	0.0	0.1	0.19	0.00	0.13	11	0	1	7	0	1
N HEXANE	3.3	0.2	0.4	0.80	0.36	0.54	48	4	6	30	2	3
TC6=3,=2	1.3	0.1	0.1	0.31	0.18	0.13	19	2	1	12	1	1
CC6=3	0.4	0.0	0.0	0.10	0.00	0.00	6	0	0	4	0	0
2MPENTENE2	0.6	0.0	0.1	0.14	0.00	0.13	9	0	1	5	0	1
MCYP43M2C5	2.7	0.2	0.4	0.65	0.36	0.54	39	4	5	24	2	3
24MPENTANE	4.8	0.5	0.9	1.16	0.89	1.21	70	10	13	44	6	8
BENZENE	12.6	2.9	2.8	3.04	5.16	3.77	167	52	35	104	32	22
CYHEXANE	0.6	0.0	0.1	0.14	0.00	0.13	9	0	1	5	0	1
2MC6+23MC5	12.4	1.3	2.1	3.00	2.31	2.83	181	25	29	112	16	18
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	4.5	0.4	0.7	1.09	0.71	0.94	66	8	10	41	5	6
224MPENTAN	25.8	3.0	4.5	6.23	5.34	6.06	376	59	63	233	36	39
NHEPTANE	4.8	0.3	0.6	1.16	0.53	0.81	70	6	8	44	4	5
MCYHEXANE	1.9	0.1	0.2	0.46	0.18	0.27	27	2	3	17	1	2
25MHEXANE	2.6	0.2	0.4	0.63	0.36	0.54	38	4	6	24	2	3
24MC6+233M	3.2	0.4	0.5	0.77	0.71	0.67	47	8	7	29	5	4
234MC5	7.6	0.7	1.1	1.84	1.25	1.48	111	14	15	69	9	10
TOLUENE	29.9	4.4	5.2	7.22	7.83	7.00	402	79	67	250	49	41
23MC6+4MC7	3.2	0.4	0.6	0.77	0.71	0.81	47	8	8	29	5	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50702
DATE RUN: 05 23 78
CAR: 1977 PLYMOUTH FURY 4DS VIN: RL41G7A150083 DRIVER: HYEK FUEL: SUNNER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
3MHEXANE	3.9	0.4	0.5	0.94	0.71	0.67	57	8	7	35	5	4
3MHEPTANE	3.6	0.4	0.5	0.87	0.71	0.67	52	8	7	33	5	4
25MHC6	3.1	0.3	0.5	0.75	0.53	0.67	45	6	7	28	4	4
N OCTANE	2.2	0.2	0.3	0.53	0.36	0.40	32	4	4	20	2	3
223MHC6	0.4	0.0	0.1	0.10	0.00	0.13	6	0	1	4	0	1
ETCYHEXANE	1.1	0.1	0.1	0.27	0.18	0.13	16	2	1	10	1	1
ET BENZENE	5.1	0.6	0.7	1.23	1.07	0.94	69	11	9	43	7	6
M+PXYLENE	18.8	2.3	2.9	4.54	4.09	3.90	254	42	37	158	26	23
2+4MC8	2.2	0.2	0.3	0.53	0.36	0.40	32	4	4	20	2	3
O XYLENE	7.3	0.9	1.1	1.76	1.60	1.48	99	16	14	61	10	9
N NONANE	1.3	0.1	0.2	0.31	0.18	0.27	19	2	3	12	1	2
IPRBENZENE	1.4	0.2	0.2	0.34	0.36	0.27	19	4	3	12	2	2
NPRBENZENE	1.4	0.1	0.1	0.34	0.18	0.13	19	2	1	12	1	1
1M3ETBENZ	6.2	0.6	0.8	1.50	1.07	1.08	84	11	10	52	7	6
135MEBENZ	2.4	0.2	0.4	0.58	0.36	0.54	33	4	5	20	2	3
1M2ETBENZ	2.0	0.1	0.4	0.48	0.18	0.54	27	2	5	17	1	3
124MBENZ	8.0	0.8	1.0	1.93	1.42	1.35	109	15	13	68	9	8
SBUBENZENE	0.7	0.1	0.1	0.17	0.18	0.13	10	2	1	6	1	1
N DECANE	0.2	0.0	0.0	0.05	0.00	0.00	3	0	0	2	0	0
123MBENZ	1.6	0.2	0.2	0.39	0.36	0.27	22	4	3	14	2	2
INDANE	0.3	0.0	0.0	0.07	0.00	0.00	4	0	0	2	0	0
13EBENZENE	0.2	0.0	0.0	0.05	0.00	0.00	3	0	0	2	0	0
NBUBENZENE	1.0	0.1	0.2	0.24	0.18	0.27	14	2	3	9	1	2
1M3PRBENZ	1.5	0.2	0.2	0.36	0.36	0.27	21	4	3	13	2	2
UNKNOWNS	24.5	2.3	3.1	5.92	4.09	4.17	335	42	41	208	26	25

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50703
DATE RUN: 06 12 78
CAR: 1977 PLYMOUTH FURY 495 VIN: RL41G7A150083 DRIVER: L J WARD FUEL: SUNNER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 70

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	266.4	24.9	77.7
GC PPMC	228.7	19.2	46.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	29.9	5.9	6.1	13.07	30.73	13.18	440	118	124	274	73	77
SATURATES	59.9	7.4	17.7	20.19	38.54	38.23	789	133	323	491	83	201
OLEFINS	56.8	2.5	8.5	24.84	13.02	18.36	731	44	152	454	27	94
ACETYLENE	20.2	0.2	0.8	8.83	1.04	1.73	241	3	13	150	2	8
NAPTHENES	2.5	0.2	0.6	1.09	1.04	1.30	42	4	11	20	2	7
AROMATICS	51.3	2.7	11.3	22.43	14.06	24.41	620	44	189	385	28	118
BENZENE	9.0	0.6	1.4	3.94	3.13	3.02	108	10	23	67	6	14
TOLUENE	16.4	1.0	3.4	7.17	5.21	7.34	198	16	57	123	10	35
C8+ARUM	25.9	1.1	6.5	11.32	5.73	14.06	318	18	111	198	11	69
UNKNOWN	8.1	0.3	1.3	0.00	0.00	0.00	100	5	22	62	3	14
INDIVIDUAL COMPONENTS												
METHANE	29.9	5.9	6.1	13.07	30.73	13.18	440	118	124	274	73	77
ETHYLENE	31.0	1.4	4.7	13.55	7.29	10.15	399	25	84	248	15	52
ETHANE	4.1	0.9	1.0	1.79	4.69	2.16	57	17	19	35	11	12
ACETYLENE	20.2	0.2	0.8	8.83	1.04	1.73	241	3	13	150	2	8
C3 + C3=	12.0	0.6	2.2	5.25	3.13	4.75	154	11	39	96	7	24
C=C=C	0.3	0.0	0.0	0.13	0.00	0.00	4	0	0	2	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.5	0.1	0.2	0.22	0.52	0.43	7	2	4	4	1	2
B1 + IB	6.7	0.3	0.9	2.93	1.56	1.94	86	5	16	54	3	10
NC4 +B=1=3	6.9	1.2	2.5	3.02	6.25	5.40	92	22	46	57	14	29
TBUTENE-2	1.0	0.0	0.1	0.44	0.00	0.22	13	0	2	8	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.6	0.0	0.1	0.26	0.00	0.22	6	0	2	5	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.0	0.09	0.00	0.00	3	0	0	2	0	0
ISOPENTANE	5.1	1.0	2.3	2.23	5.21	4.97	68	18	42	42	11	26
PENTENE-1	0.3	0.0	0.0	0.13	0.00	0.00	4	0	0	2	0	0
2MBUT-1	0.5	0.0	0.0	0.22	0.00	0.00	6	0	0	4	0	0
NPENTANE	0.9	0.2	0.5	0.39	1.04	1.08	12	4	9	7	2	6
2MB=1=3	0.4	0.0	0.0	0.17	0.00	0.00	5	0	0	3	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50703
DATE RUN: 06 12 78
CAR: 1977 PLYMOUTH FURY 495 VIN: RL41G7A150083 DRIVER: L J WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.6	0.1	0.1	0.26	0.52	0.22	8	2	2	5	1	1
CISPENT-2	0.2	0.0	0.0	0.09	0.00	0.00	3	0	0	2	0	0
2MBUT-2	1.1	0.1	0.4	0.48	0.52	0.86	14	2	7	9	1	4
22MBUTANE	0.5	0.0	0.2	0.22	0.00	0.43	7	0	4	4	0	2
CYPENTENE	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.5	0.0	0.0	0.22	0.00	0.00	6	0	0	4	0	0
CYPENTANE	0.3	0.1	0.1	0.13	0.52	0.22	4	2	2	2	1	1
23MBUTANE	1.6	0.3	0.3	0.70	1.56	0.65	21	5	5	13	3	3
2MPENTANE	2.6	0.3	1.1	1.14	1.56	2.38	34	5	20	21	3	12
3MPENTANE	1.4	0.2	0.4	0.61	1.04	0.86	18	4	7	11	2	5
HEXENE-1	0.3	0.0	0.0	0.13	0.00	0.00	4	0	0	2	0	0
N HEXANE	0.9	0.1	0.3	0.39	0.52	0.65	12	2	5	7	1	3
TC6=3,=2	0.6	0.0	0.0	0.26	0.00	0.00	8	0	0	5	0	0
CC6=3	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.3	0.0	0.0	0.13	0.00	0.00	4	0	0	2	0	0
MCYP43M2C5	1.1	0.1	0.3	0.48	0.52	0.65	14	2	5	9	1	3
24MPENTANE	2.4	0.2	0.6	1.05	1.04	1.30	32	4	11	20	2	7
BENZENE	9.0	0.6	1.4	3.94	3.13	3.02	108	10	23	67	6	14
CYHEXANE	0.3	0.0	0.0	0.13	0.00	0.00	4	0	0	2	0	0
2MC6+23MC5	5.6	0.5	1.4	2.45	2.60	3.02	74	9	25	46	6	16
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.9	0.1	0.5	0.83	0.52	1.08	25	2	9	16	1	6
224MPENTAN	11.1	1.2	2.9	4.85	6.25	6.26	145	21	53	90	13	33
NHEPTANE	1.8	0.1	0.4	0.79	0.52	0.86	24	2	7	15	1	5
MCYHEXANE	0.5	0.0	0.1	0.22	0.00	0.22	6	0	2	4	0	1
25MHEXANE	1.0	0.1	0.2	0.44	0.52	0.43	13	2	4	8	1	2
24MC6+233M	1.3	0.1	0.5	0.57	0.52	1.08	17	2	9	11	1	6
234MC5	2.6	0.2	0.6	1.14	1.04	1.30	34	4	11	21	2	7
TOLUENE	16.4	1.0	3.4	7.17	5.21	7.34	198	16	57	123	10	35
23MC6+4MC7	1.3	0.1	0.3	0.57	0.52	0.65	17	2	5	11	1	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50703
DATE RUN: 06 12 7H
CAR: 1977 PLYMOUTH FURY 495 VIN: RL41G7A150083 DRIVER: L J WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	1.6	0.1	0.4	0.70	0.52	0.86	21	2	7	13	1	5
3MHEPTANE	1.4	0.1	0.3	0.61	0.52	0.65	16	2	5	11	1	3
255MC6	1.3	0.1	0.3	0.57	0.52	0.65	17	2	5	11	1	3
N OCTANE	0.8	0.1	0.2	0.35	0.52	0.43	10	2	4	7	1	2
223MC6	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.3	0.0	0.1	0.13	0.00	0.22	4	0	2	2	0	1
ET BENZENE	2.4	0.1	0.5	1.05	0.52	1.08	29	2	8	18	1	5
M+PXYLENE	9.5	0.5	2.3	4.15	2.60	4.97	116	8	39	72	5	24
244MC8	0.8	0.1	0.2	0.35	0.52	0.43	10	2	4	7	1	2
O XYLENE	3.6	0.2	0.9	1.57	1.04	1.94	44	3	15	27	2	9
N NONANE	0.4	0.0	0.1	0.17	0.00	0.22	5	0	2	3	0	1
IPRBENZENE	0.5	0.0	0.1	0.22	0.00	0.22	6	0	2	4	0	1
NPRBENZENE	0.5	0.0	0.1	0.22	0.00	0.22	6	0	2	4	0	1
1M3ETBENZ	2.8	0.1	0.7	1.22	0.52	1.51	34	2	12	21	1	7
135MEBENZ	1.0	0.0	0.3	0.44	0.00	0.65	12	0	5	8	0	3
1M2ETBENZ	0.7	0.0	0.1	0.31	0.00	0.22	9	0	2	5	0	1
124MBENZ	3.2	0.2	0.9	1.40	1.04	1.94	39	3	15	24	2	9
SBUBENZENE	0.1	0.0	0.1	0.04	0.00	0.22	1	0	2	1	0	1
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.5	0.0	0.2	0.22	0.00	0.43	6	0	3	4	0	2
INDANE	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.5	0.0	0.1	0.22	0.00	0.22	6	0	2	4	0	1
1M3PRBENZ	0.5	0.0	0.2	0.22	0.00	0.43	6	0	3	4	0	2
UNKNOWNS	6.1	0.3	1.3	3.54	1.56	2.81	100	5	22	62	3	14

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50801
DATE RUN: 05 15 78
CAR: 1977 PLYMOUTH FURY 495 VIN: RL41G7A150083 DRIVER: L WARD FUEL: SUNNER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	294.8	26.3	113.5
GC PPMC	233.1	22.8	81.5

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	20.5	6.3	7.4	8.79	27.63	9.08	376	117	129	234	72	80
SATURATES	90.3	9.6	38.8	38.74	42.11	47.61	1483	159	605	922	99	376
OLEFINS	48.1	3.3	15.6	20.63	14.47	19.14	772	53	238	480	33	148
ACETYLENE	13.5	0.0	1.4	5.79	0.00	1.72	201	0	20	125	0	12
NAPTHENES	4.1	0.2	1.4	1.76	0.88	1.72	66	3	21	41	2	13
AROMATICS	47.2	2.8	14.5	20.25	12.28	17.79	711	43	208	442	26	129
BENZENE	7.3	0.7	2.3	3.13	3.07	2.82	109	11	33	68	7	20
TOLUENE	15.9	1.0	4.9	6.82	4.39	6.01	240	15	70	149	9	44
C8+AROM	24.0	1.1	7.3	10.30	4.82	8.96	367	17	106	228	11	66
UNKNOWN	9.4	0.6	2.4	0.00	0.00	0.00	144	9	35	90	6	22
INDIVIDUAL COMPONENTS												
METHANE	20.5	6.3	7.4	8.79	27.63	9.08	376	117	129	234	72	80
ETHYLENE	22.2	1.6	6.6	9.52	7.02	8.10	356	26	101	221	16	63
ETHANE	3.2	0.9	1.3	1.37	3.95	1.60	55	16	21	34	10	13
ACETYLENE	13.5	0.0	1.4	5.79	0.00	1.72	201	0	20	125	0	12
C3 + C3=	9.5	0.7	3.3	4.08	3.07	4.05	152	11	50	95	7	31
C=C=C	0.2	0.0	0.0	0.09	0.00	0.00	3	0	0	2	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.9	0.2	1.0	0.39	0.88	1.23	15	3	16	9	2	10
B1 + IB	5.6	0.4	1.9	2.40	1.75	2.33	90	6	29	56	4	18
NC4 +B=1=3	8.9	1.3	6.6	3.82	5.70	8.10	148	22	104	92	14	65
TBUTENE-2	1.0	0.1	0.4	0.43	0.44	0.49	16	2	6	10	1	4
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.7	0.1	0.3	0.30	0.44	0.37	11	2	5	7	1	3
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.3	0.0	0.1	0.13	0.00	0.12	5	0	2	3	0	1
ISOPENTANE	9.8	1.3	5.7	4.20	5.70	6.99	162	22	89	101	13	56
PENTENE-1	0.5	0.0	0.2	0.21	0.00	0.25	8	0	3	5	0	2
2MBUT-1	0.9	0.1	0.3	0.39	0.44	0.37	14	2	5	9	1	3
NPENTANE	1.9	0.2	1.1	0.82	0.88	1.35	31	3	17	19	2	11
2MB=1=3	0.3	0.0	0.0	0.13	0.00	0.00	5	0	0	3	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50801
DATE RUN: 05 15 78
CAR: 1977 PLYMOUTH FURY 495 VIN: RL41G7A150063 DRIVER: L WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	1.1	0.1	0.4	0.47	0.44	0.49	18	2	6	11	1	4
CISPLNT-2	0.6	0.0	0.2	0.26	0.00	0.25	10	0	3	6	0	2
2MBUT-2	2.1	0.2	0.9	0.90	0.88	1.10	34	3	14	21	2	9
22MBUTANE	2.9	0.7	0.1	1.24	3.07	0.12	48	12	2	30	7	1
CYPENTENE	0.3	0.0	0.1	0.13	0.00	0.12	5	0	1	3	0	1
3MPENTENE	0.2	0.0	0.1	0.09	0.00	0.12	3	0	2	2	0	1
CYPLNTANE	0.4	0.0	0.1	0.17	0.00	0.12	6	0	2	4	0	1
23MBUTANE	2.6	0.4	0.8	1.12	1.75	0.98	43	7	12	27	4	8
2MPENTANE	4.5	0.4	2.4	1.93	1.75	2.94	74	7	37	46	4	23
3MPENTANE	2.3	0.2	1.0	0.99	0.88	1.23	38	3	16	23	2	10
HEXENE-1	0.5	0.0	0.1	0.21	0.00	0.12	8	0	2	5	0	1
N HEXANE	1.6	0.1	0.6	0.69	0.44	0.74	26	2	9	16	1	6
TC6=3,=2	1.2	0.0	0.4	0.51	0.00	0.49	19	0	6	12	0	4
CC6=3	0.4	0.0	0.1	0.17	0.00	0.12	6	0	2	4	0	1
2MPENTENE2	0.5	0.0	0.2	0.21	0.00	0.25	8	0	3	5	0	2
MCYP43M2C5	2.0	0.1	0.7	0.86	0.44	0.86	32	2	11	20	1	7
24MPENTANE	3.5	0.3	1.3	1.50	1.32	1.60	57	5	20	36	3	13
BENZENE	7.3	0.7	2.3	3.13	3.07	2.82	109	11	33	68	7	20
CYHEXANE	0.4	0.0	0.2	0.17	0.00	0.25	6	0	3	4	0	2
2MC6+23MC5	8.2	0.6	2.9	3.52	2.63	3.56	134	10	45	83	6	28
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.5	0.1	0.9	1.07	0.44	1.10	41	2	14	25	1	9
224MPENTAN	17.1	1.7	6.2	7.34	7.46	7.61	279	28	96	174	17	60
NHEPTANE	2.3	0.1	0.8	0.99	0.44	0.98	38	2	12	23	1	8
MCYHEXANE	0.9	0.1	0.3	0.39	0.44	0.37	14	2	5	9	1	3
25MHEXANE	1.6	0.1	0.5	0.69	0.44	0.61	26	2	8	16	1	5
24MC6+233M	1.9	0.1	0.7	0.82	0.44	0.86	31	2	11	19	1	7
234MC5	4.7	0.3	1.5	2.02	1.32	1.84	77	5	23	48	3	14
TOLUENE	15.9	1.0	4.9	6.82	4.39	6.01	240	15	78	149	9	44
23MC6+4MC7	1.9	0.1	0.7	0.82	0.44	0.86	31	2	11	19	1	7

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50801
DATE RUN: 05 15 76
CAR: 1977 PLYMOUTH FURY 49S VIN: RL41G7A150063 DRIVER: L WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILL			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.0	0.1	0.7	0.86	0.44	0.86	33	2	11	20	1	7
3MHEPTANE	1.9	0.1	0.6	0.82	0.44	0.74	31	2	9	19	1	6
255MC6	1.5	0.1	0.5	0.64	0.44	0.61	24	2	8	15	1	5
N OCTANE	0.9	0.1	0.4	0.39	0.44	0.49	15	2	6	9	1	4
223MC6	0.2	0.0	0.0	0.09	0.00	0.00	3	0	0	2	0	0
ETCYHEXANE	0.4	0.0	0.1	0.17	0.00	0.12	6	0	2	4	0	1
ET BENZENE	2.3	0.1	0.7	0.99	0.44	0.86	35	2	10	22	1	6
M+PXYLENE	8.8	0.5	2.7	3.78	2.19	3.31	134	8	39	83	5	24
294MC8	1.0	0.1	0.3	0.43	0.44	0.37	16	2	5	10	1	3
O XYLENE	3.2	0.2	1.0	1.37	0.88	1.23	49	3	14	30	2	9
N NONANE	0.5	0.0	0.2	0.21	0.00	0.25	8	0	3	5	0	2
IPRBENZENE	0.5	0.0	0.2	0.21	0.00	0.25	8	0	3	5	0	2
NPRBENZENE	0.5	0.0	0.1	0.21	0.00	0.12	8	0	1	5	0	1
1M3ETBENZ	2.5	0.1	0.7	1.07	0.44	0.86	38	2	10	24	1	6
135MEBENZ	0.9	0.0	0.2	0.39	0.00	0.25	14	0	3	9	0	2
1M2ETBENZ	0.7	0.0	0.1	0.30	0.00	0.12	11	0	1	7	0	1
124MBENZ	2.9	0.2	0.9	1.24	0.88	1.10	44	3	13	28	2	8
SBUHENZENE	0.2	0.0	0.1	0.09	0.00	0.12	3	0	1	2	0	1
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.5	0.0	0.2	0.21	0.00	0.25	8	0	3	5	0	2
INDANE	0.1	0.0	0.0	0.04	0.00	0.00	2	0	0	1	0	0
13ERBENZENE	0.1	0.0	0.0	0.04	0.00	0.00	2	0	0	1	0	0
NBUHENZENE	0.3	0.0	0.2	0.13	0.00	0.25	5	0	3	3	0	2
1M3PRBENZ	0.5	0.0	0.2	0.21	0.00	0.25	8	0	3	5	0	2
UNKNOWNS	9.4	0.6	2.4	4.03	2.63	2.94	144	9	35	90	6	22

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50802
DATE RUN: 05 22 78
CAR: 1977 PLYMOUTH FURY 49S VIN: RL41G7A150083 DRIVER: L WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	252.0	20.3	82.8
GC PPMC	87.0	23.0	24.8

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
MAJOR COMPONENTS												
METHANE	5.4	6.9	3.0	6.21	30.00	12.10	204	96	126	127	59	78
SATURATES	35.3	8.0	12.0	40.57	34.78	48.39	1193	99	452	742	62	281
OLEFINS	17.0	3.7	2.8	19.54	16.09	11.29	561	45	103	349	28	64
ACETYLENE	2.2	0.3	0.2	2.53	1.30	0.81	67	3	7	42	2	4
NAPTHENES	1.6	0.3	0.5	1.84	1.30	2.02	53	4	18	33	2	11
AROMATICS	21.9	3.6	5.6	25.17	15.65	22.58	679	41	193	422	25	120
BENZENE	3.3	0.9	0.7	3.79	3.91	2.82	101	10	24	63	6	15
TOLUENE	7.4	1.3	1.9	8.51	5.65	7.66	229	15	66	143	9	41
C8+AROM	11.2	1.4	3.0	12.87	6.09	12.10	353	16	105	219	10	65
UNKNOWN	3.6	0.2	0.7	0.00	0.00	0.00	114	2	25	71	1	15
INDIVIDUAL COMPONENTS												
METHANE	5.4	6.9	3.0	6.21	30.00	12.10	204	96	126	127	59	78
ETHYLENE	6.7	2.1	1.2	7.70	9.13	4.84	221	25	44	137	16	27
ETHANE	1.1	1.0	0.5	1.26	4.35	2.02	39	13	20	24	8	12
ACETYLENE	2.2	0.3	0.2	2.53	1.30	0.81	67	3	7	42	2	4
C3 + C3=	4.6	1.1	0.8	5.29	4.78	3.23	152	13	29	94	8	18
C=C=C	0.1	0.0	0.0	0.11	0.00	0.00	3	0	0	2	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.2	0.1	0.2	0.23	0.43	0.81	7	1	8	4	1	5
B1 + IB	2.8	0.4	0.4	3.22	1.74	1.61	92	5	15	57	3	9
NC4 +B=1=3	2.3	0.9	1.3	2.64	3.91	5.24	79	11	50	49	7	31
TBUTENE-2	0.3	0.0	0.0	0.34	0.00	0.00	10	0	0	6	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.0	0.23	0.00	0.00	7	0	0	4	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.11	0.00	0.00	3	0	0	2	0	0
ISOPENTANE	3.1	1.2	1.9	3.56	5.22	7.66	105	15	72	65	9	45
PENTENE-1	0.1	0.0	0.0	0.11	0.00	0.00	3	0	0	2	0	0
2MBUT-1	0.3	0.0	0.1	0.34	0.00	0.40	10	0	4	6	0	2
NPENTANE	0.6	0.2	0.3	0.69	0.87	1.21	20	2	11	13	2	7
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50602
DATE RUN: 05 22 78
CAR: 1977 PLYMOUTH FURY 4V5 VIN: RL41G7A150083 DRIVER: L WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	0.3	0.0	0.1	0.34	0.00	0.40	10	0	4	6	0	2
CISPENT-2	0.1	0.0	0.0	0.11	0.00	0.00	3	0	0	2	0	0
2MBUT-2	0.6	0.1	0.2	0.69	0.43	0.81	20	1	7	12	1	5
22MBUTANE	0.6	0.1	0.0	0.69	0.43	0.00	20	1	0	13	1	0
CYPENTENE	0.1	0.0	0.0	0.11	0.00	0.00	3	0	0	2	0	0
3MPENTENE	0.1	0.0	0.0	0.11	0.00	0.00	3	0	0	2	0	0
CYPENTANE	0.1	0.1	0.1	0.11	0.43	0.40	3	1	4	2	1	2
23MBUTANE	0.6	0.2	0.2	0.69	0.87	0.81	20	2	8	13	2	5
2MPENTANE	2.3	0.4	0.6	2.64	1.74	2.42	78	5	23	48	3	14
3MPENTANE	0.9	0.2	0.3	1.03	0.87	1.21	30	2	11	19	2	7
HEXENE-1	0.1	0.0	0.0	0.11	0.00	0.00	3	0	0	2	0	0
N HEXANE	0.6	0.1	0.2	0.69	0.43	0.81	20	1	8	13	1	5
TC6=3,=2	0.4	0.0	0.0	0.46	0.00	0.00	13	0	0	8	0	0
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.1	0.0	0.0	0.11	0.00	0.00	3	0	0	2	0	0
MCYP43M2C5	0.7	0.1	0.2	0.80	0.43	0.81	23	1	7	14	1	5
24MPENTANE	1.3	0.2	0.4	1.49	0.87	1.61	44	2	15	27	2	9
BENZENE	3.3	0.9	0.7	3.79	3.91	2.82	101	10	24	63	6	15
CYHEXANE	0.2	0.0	0.0	0.23	0.00	0.00	7	0	0	4	0	0
2MC6+23MC5	3.4	0.6	1.0	3.91	2.61	4.03	115	7	38	71	5	23
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.0	0.2	0.3	1.15	0.87	1.21	34	2	11	21	2	7
224MPENTAN	7.8	1.4	2.5	8.97	6.09	10.08	262	17	94	163	11	58
NHEPTANE	0.9	0.1	0.2	1.03	0.43	0.81	30	1	8	19	1	5
MCYHEXANE	0.4	0.1	0.1	0.46	0.43	0.40	13	1	4	8	1	2
25MHEXANE	0.7	0.1	0.2	0.80	0.43	0.81	24	1	7	15	1	5
24MC6+233M	0.9	0.1	0.3	1.03	0.43	1.21	30	1	11	19	1	7
234MC5	2.1	0.3	0.5	2.41	1.30	2.02	71	4	19	44	2	12
TOLUENE	7.4	1.3	1.9	8.51	5.65	7.66	229	15	66	143	9	41
23MC6+4MC7	0.9	0.1	0.2	1.03	0.43	0.81	30	1	7	19	1	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50802
DATE RUN: 05 22 78
CAR: 1977 PLYMOUTH FURY 4VS VIN: RL41G7A150083 DRIVER: L WARD FUEL: SUMNER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHLXANE	1.0	0.1	0.2	1.15	0.43	0.81	34	1	7	21	1	5
3MHEPTANE	0.9	0.1	0.2	1.03	0.43	0.81	30	1	7	19	1	5
255MC6	0.8	0.1	0.2	0.92	0.43	0.81	27	1	7	17	1	5
N OCTANE	0.4	0.1	0.1	0.46	0.43	0.40	13	1	4	8	1	2
223MC6	0.1	0.0	0.0	0.11	0.00	0.00	3	0	0	2	0	0
ETCYHEXANE	0.2	0.0	0.1	0.23	0.00	0.40	7	0	4	4	0	2
ET BENZENE	1.1	0.2	0.3	1.26	0.87	1.21	34	2	10	21	1	6
M+PXYLENE	4.1	0.6	1.0	4.71	2.61	4.03	128	7	35	80	4	22
2+4MC8	0.5	0.1	0.1	0.57	0.43	0.40	17	1	4	10	1	2
O XYLENE	1.5	0.2	0.4	1.72	0.87	1.61	47	2	14	29	1	9
N NONANE	0.3	0.0	0.1	0.34	0.00	0.40	10	0	4	6	0	2
IPRBENZENE	0.3	0.0	0.1	0.34	0.00	0.40	9	0	3	6	0	2
NPRBENZENE	0.2	0.0	0.0	0.23	0.00	0.00	6	0	0	4	0	0
1M3ETBENZ	1.2	0.2	0.3	1.38	0.87	1.21	38	2	10	23	1	7
135MEBENZ	0.4	0.0	0.1	0.46	0.00	0.40	13	0	3	8	0	2
1M2ETHENZ	0.4	0.0	0.1	0.46	0.00	0.40	13	0	3	8	0	2
124MBENZ	1.2	0.2	0.4	1.38	0.87	1.61	38	2	14	23	1	9
SBUBENZENE	0.1	0.0	0.0	0.11	0.00	0.00	3	0	0	2	0	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.2	0.0	0.1	0.23	0.00	0.40	6	0	3	4	0	2
INDANE	0.1	0.0	0.0	0.11	0.00	0.00	3	0	0	2	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.2	0.0	0.1	0.23	0.00	0.40	6	0	4	4	0	2
1M3PRBENZ	0.2	0.0	0.1	0.23	0.00	0.40	6	0	4	4	0	2
UNKNOWNS	3.6	0.2	0.7	4.14	0.87	2.82	114	2	25	71	1	15

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50901
DATE RUN: 05 16 78
CAR: 1977 PLYMOUTH FURY 495 VIN: RL41G7A150083 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	149.0	25.7	105.8
GC PPMC	114.5	20.2	78.7

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
MAJOR COMPONENTS												
METHANE	14.8	6.5	7.8	12.93	32.18	9.91	274	134	133	170	84	83
SATURATES	32.7	7.4	37.4	28.56	36.63	47.52	542	137	572	337	85	355
OLEFINS	31.5	5.1	15.9	27.51	15.35	20.20	510	56	237	317	35	148
ACETYLENE	6.3	0.2	1.1	5.50	0.99	1.40	95	3	15	59	2	9
NAPTHENES	1.3	0.2	1.3	1.14	0.99	1.65	21	4	19	13	2	12
AROMATICS	23.5	2.5	12.5	20.52	12.38	15.88	358	42	175	222	26	109
BENZENE	4.0	0.6	2.2	3.49	2.97	2.80	60	10	30	37	6	19
TOLUENE	7.0	0.8	4.4	6.11	3.96	5.59	106	14	62	66	8	38
C8+AROM	12.5	1.1	5.9	10.92	5.45	7.50	193	19	84	120	12	52
UNKNOWN	4.4	0.3	2.7	0.00	0.00	0.00	68	5	39	42	3	24
INDIVIDUAL COMPONENTS												
METHANE	14.8	6.5	7.8	12.93	32.18	9.91	274	134	133	170	84	83
ETHYLENE	10.3	1.9	7.3	14.24	9.41	9.28	264	34	109	164	21	68
ETHANE	2.3	1.0	1.6	2.01	4.95	2.83	40	19	26	25	12	16
ACETYLENE	6.2	0.2	1.1	5.41	0.99	1.40	93	3	15	58	2	9
C3 + C3=	7.0	0.6	2.3	6.11	3.96	2.92	113	14	34	70	9	21
C=C=C	0.2	0.0	0.1	0.17	0.00	0.13	3	0	1	2	0	1
METHACETYL	0.1	0.0	0.0	0.09	0.00	0.00	2	0	0	1	0	0
ISOBUTANE	0.5	0.1	1.0	0.44	0.50	1.27	8	2	15	5	1	10
B1 + IB	3.9	0.3	2.0	3.41	1.49	2.54	63	5	30	39	3	19
NC4 +B=1=3	3.8	0.9	5.8	3.32	4.46	7.37	64	17	90	40	10	56
TBUTENE-2	0.5	0.0	0.5	0.44	0.00	0.64	8	0	7	5	0	5
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.4	0.0	0.5	0.35	0.00	0.64	6	0	7	4	0	5
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.1	0.09	0.00	0.13	2	0	1	1	0	1
ISOPENTANE	3.3	1.0	5.5	2.88	4.95	6.99	55	19	85	34	12	53
PENTENE-1	0.2	0.0	0.2	0.17	0.00	0.25	3	0	3	2	0	2
2MBUT-1	0.4	0.0	0.3	0.35	0.00	0.38	6	0	4	4	0	3
NPENTANE	0.7	0.2	1.0	0.61	0.99	1.27	12	4	15	7	2	10
2MB=1=3	0.4	0.0	0.0	0.35	0.00	0.00	6	0	0	4	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NUM: 50901
DATE RUN: 05 16 78
CAR: 1977 PLYMOUTH FURY 49S VIN: RL41G7A150083 DRIVER: WAHD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT-2	0.4	0.0	0.4	0.35	0.00	0.51	6	0	6	4	0	4
CISPENT-2	0.1	0.0	0.2	0.09	0.00	0.25	2	0	3	1	0	2
2MBUT-2	0.7	0.1	1.0	0.61	0.50	1.27	11	2	15	7	1	9
22MBUTANE	0.8	0.3	0.8	0.70	1.49	1.02	13	6	12	8	3	8
CYPENTENE	0.1	0.0	0.0	0.09	0.00	0.00	2	0	0	1	0	0
3MPENTENE	0.1	0.0	0.1	0.09	0.00	0.13	2	0	1	1	0	1
CYPENTANE	0.2	0.1	0.1	0.17	0.50	0.13	3	2	1	2	1	1
23MBUTANE	0.7	0.2	0.8	0.61	0.99	1.02	12	4	12	7	2	8
2MPENTANE	1.3	0.3	1.6	1.14	1.49	2.03	22	6	24	13	3	15
3MPENTANE	0.8	0.2	1.0	0.70	0.99	1.27	13	4	15	8	2	10
HEXENE-1	0.3	0.0	0.2	0.26	0.00	0.25	5	0	3	3	0	2
N HEXANE	0.5	0.1	0.7	0.44	0.50	0.89	8	2	11	5	1	7
TC6=3,=2	0.3	0.0	0.4	0.26	0.00	0.51	5	0	6	3	0	4
CC6=3	0.0	0.0	0.1	0.00	0.00	0.13	0	0	1	0	0	1
2MPENTENE2	0.1	0.0	0.2	0.09	0.00	0.25	2	0	3	1	0	2
MCYP43M2C5	0.5	0.1	0.7	0.44	0.50	0.89	8	2	10	5	1	6
24MPENTANE	1.2	0.2	1.3	1.05	0.99	1.65	20	4	20	12	2	12
BENZENE	4.0	0.6	2.2	3.49	2.97	2.80	60	10	30	37	6	19
CYHEXANE	0.1	0.0	0.1	0.09	0.00	0.13	2	0	1	1	0	1
2MC6+23MC5	2.7	0.5	2.7	2.36	2.48	3.43	45	9	41	28	6	26
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.8	0.1	0.8	0.70	0.50	1.02	13	2	12	8	1	8
224MPENTAN	5.9	1.2	6.3	5.15	5.94	8.01	97	22	96	60	14	60
NHEPTANE	0.7	0.1	0.6	0.61	0.50	0.76	12	2	9	7	1	6
MCYHEXANE	0.3	0.0	0.3	0.26	0.00	0.38	5	0	4	3	0	3
25MHEXANE	0.5	0.1	0.5	0.44	0.50	0.64	8	2	8	5	1	5
24MC6+233M	0.7	0.1	0.7	0.61	0.50	0.89	12	2	11	7	1	7
234MC5	1.6	0.2	1.4	1.40	0.99	1.78	26	4	21	16	2	13
TOLUENE	7.0	0.8	4.4	6.11	3.96	5.59	106	14	62	66	8	38
23MC6+4MC7	0.7	0.1	0.6	0.61	0.50	0.76	12	2	9	7	1	6

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50901
DATE RUN: 05 16 78
CAR: 1977 PLYMOUTH FURY 495 VIN: RL41G7A150083 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	0.8	0.1	0.7	0.70	0.50	0.89	13	2	11	8	1	7
3MHEPTANE	0.7	0.1	0.6	0.61	0.50	0.76	12	2	9	7	1	6
25DMC6	0.6	0.1	0.5	0.52	0.50	0.64	10	2	8	6	1	5
N OCTANE	0.4	0.1	0.3	0.35	0.50	0.38	7	2	5	4	1	3
223MC6	0.1	0.0	0.1	0.09	0.00	0.13	2	0	2	1	0	1
ETCYHEXANE	0.2	0.0	0.1	0.17	0.00	0.13	3	0	1	2	0	1
ET BENZENE	1.1	0.1	0.6	0.96	0.50	0.76	17	2	8	10	1	5
M+PXYLENE	4.3	0.5	2.1	3.76	2.48	2.67	66	9	30	41	5	18
24DMC6	0.4	0.1	0.3	0.35	0.50	0.38	7	2	5	4	1	3
O XYLENE	1.7	0.2	0.8	1.48	0.99	1.02	26	3	11	16	2	7
N NONANE	0.2	0.0	0.2	0.17	0.00	0.25	3	0	3	2	0	2
IPRBENZENE	0.2	0.0	0.2	0.17	0.00	0.25	3	0	3	2	0	2
NPRBENZENE	0.2	0.0	0.1	0.17	0.00	0.13	3	0	1	2	0	1
1M3ETBENZ	1.4	0.1	0.6	1.22	0.50	0.76	22	2	9	13	1	5
135MEBENZ	0.5	0.0	0.2	0.44	0.00	0.25	8	0	3	5	0	2
1M2ETBENZ	0.4	0.0	0.2	0.35	0.00	0.25	6	0	3	4	0	2
124MBENZ	1.8	0.2	0.7	1.57	0.99	0.89	28	3	10	17	2	6
SBUBENZENE	0.1	0.0	0.1	0.09	0.00	0.13	2	0	1	1	0	1
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.3	0.0	0.1	0.26	0.00	0.13	5	0	1	3	0	1
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MBUBENZENE	0.2	0.0	0.1	0.17	0.00	0.13	3	0	1	2	0	1
1M3PRBNZ	0.3	0.0	0.1	0.26	0.00	0.13	5	0	1	3	0	1
UNKNOWNS	4.4	0.3	2.7	3.84	1.49	3.43	68	5	39	42	3	24

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50902
DATE RUN: 05 19 78
CAR: 1977 PLYMOUTH FURY 495 VIN: RL41G7A150083 DRIVER: SWARTZ FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	212.3	33.8	102.7
GC PPMC	171.6	25.3	75.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	17.1	7.6	8.6	9.97	30.04	11.42	268	164	144	167	102	89
SATURATES	56.8	8.9	30.8	33.10	35.18	40.90	798	172	460	496	107	286
OLEFINS	44.3	4.0	15.6	25.82	15.81	20.72	608	76	228	378	47	142
ACETYLENE	7.3	0.3	1.3	4.25	1.19	1.73	93	5	18	58	3	11
NAPTHENES	2.8	0.3	1.3	1.63	1.19	1.73	38	6	19	24	4	12
AROMATICS	36.6	3.9	14.5	21.33	15.42	19.26	471	69	199	293	43	124
BENZENE	5.9	0.9	2.4	3.44	3.56	3.19	75	16	33	47	10	20
TOLUENE	11.9	1.3	4.7	6.93	5.14	6.24	153	23	64	95	14	40
C8+AROM	18.8	1.7	7.4	10.96	6.72	9.83	246	31	103	153	19	64
UNKNOWN	6.7	0.3	3.2	0.00	0.00	0.00	88	5	45	55	3	28
INDIVIDUAL COMPONENTS												
METHANE	17.1	7.6	8.6	9.97	30.04	11.42	268	164	144	167	102	89
ETHYLENE	20.8	2.3	7.2	12.12	9.09	9.56	285	43	105	177	27	65
ETHANE	3.1	1.1	1.5	1.81	4.35	1.99	46	22	23	28	14	15
ACETYLENE	7.3	0.3	1.3	4.25	1.19	1.73	93	5	18	58	3	11
C3 + C3=	10.3	1.1	3.5	6.00	4.35	4.65	141	21	51	88	13	32
C=C=C	0.4	0.0	0.1	0.23	0.00	0.13	5	0	1	3	0	1
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.7	0.1	0.5	0.41	0.40	0.66	10	2	8	6	1	5
B1 + IB	6.0	0.5	2.0	3.50	1.98	2.66	82	9	29	51	6	18
NC4 +B=1=3	4.9	0.9	4.4	2.86	3.56	5.84	70	18	67	43	11	41
TBUTENE-2	0.8	0.8	0.3	0.47	0.00	0.40	11	0	4	7	0	3
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.6	0.0	0.2	0.35	0.80	0.27	8	0	3	5	0	2
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.1	0.12	0.00	0.13	3	0	1	2	0	1
ISOPENTANE	4.9	1.2	4.2	2.86	4.74	5.58	69	23	63	43	14	39
PENTENE-1	0.3	0.0	0.1	0.17	0.00	0.13	4	0	1	3	0	1
2MBUT-1	0.6	0.0	0.3	0.35	0.00	0.40	8	0	4	5	0	3
NPENTANE	1.0	0.2	0.8	0.58	0.79	1.06	14	4	12	9	2	7
2MB=1=3	0.3	0.0	0.0	0.17	0.00	0.00	4	0	0	2	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50902
DATE RUN: 05 19 78
CAR: 1977 PLYMOUTH FURY 4VS VIN: RL41G7A150083 DRIVER: SWARTZ FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	0.6	0.0	0.3	0.35	0.00	0.40	8	0	4	5	0	3
CISPENT-2	0.3	0.0	0.2	0.17	0.00	0.27	4	0	3	3	0	2
2MBUT-2	1.2	0.1	0.7	0.70	0.40	0.93	16	2	10	10	1	6
22MBUTANE	0.9	0.7	0.1	0.52	2.77	0.13	13	14	1	8	8	1
CYPENTENE	0.2	0.0	0.1	0.12	0.00	0.13	3	0	1	2	0	1
3MPENTENE	0.2	0.0	0.0	0.12	0.00	0.00	3	0	0	2	0	0
CYPENTANE	0.3	0.1	0.1	0.17	0.40	0.13	4	2	1	3	1	1
23MBUTANE	1.3	0.3	0.6	0.76	1.19	0.80	18	6	9	11	4	6
2MPENTANE	2.4	0.4	1.5	1.40	1.58	1.99	34	8	22	21	5	14
3MPENTANE	1.3	0.2	0.8	0.76	0.79	1.06	18	4	12	11	2	7
HEXENE-1	0.4	0.0	0.0	0.23	0.00	0.00	5	0	0	3	0	0
N HEXANE	0.9	0.1	0.5	0.52	0.40	0.66	13	2	7	8	1	5
TC6=3,=2	0.6	0.0	0.3	0.35	0.00	0.40	8	0	4	5	0	3
CC6=3	0.2	0.0	0.1	0.12	0.00	0.13	3	0	1	2	0	1
2MPENTENE2	0.3	0.0	0.1	0.17	0.00	0.13	4	0	1	3	0	1
MCYP43M2C5	1.1	0.1	0.6	0.64	0.40	0.80	15	2	9	9	1	5
24MPENTANE	2.1	0.2	1.1	1.22	0.79	1.46	29	4	16	18	2	10
BENZENE	5.9	0.9	2.4	3.44	3.56	3.19	75	16	33	47	10	20
CYHEXANE	0.4	0.0	0.2	0.23	0.00	0.27	5	0	3	3	0	2
2MC6+23MC5	5.3	0.6	2.5	3.09	2.37	3.32	74	12	37	46	7	23
24MHLXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.7	0.2	0.8	0.99	0.79	1.06	24	4	12	15	2	7
224MPENTAN	11.6	1.6	5.5	6.76	6.32	7.30	162	31	82	101	19	51
NHEPTANE	1.6	0.1	0.6	0.93	0.40	0.80	22	2	9	14	1	6
MCYHEXANE	0.6	0.1	0.3	0.35	0.40	0.40	8	2	4	5	1	3
25MHEXANE	1.0	0.1	0.4	0.58	0.40	0.53	14	2	6	9	1	4
24MC6+233M	1.4	0.1	0.6	0.82	0.40	0.80	20	2	9	12	1	6
234MC5	3.1	0.3	1.3	1.81	1.19	1.73	43	6	19	27	4	12
TOLUENE	11.9	1.3	4.7	6.93	5.14	6.24	153	23	64	95	14	40
23MC6+4MC7	1.4	0.1	0.6	0.82	0.40	0.80	20	2	9	12	1	6

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 50902
DATE RUN: 05 19 78
CAR: 1977 PLYMOUTH FURY 4PS VIN: RL41G7A150083 DRIVER: SWANTZ FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.5	0.1	0.6	0.87	0.40	0.80	21	2	9	13	1	6
3MHEPTANE	1.4	0.1	0.6	0.82	0.40	0.80	20	2	9	12	1	6
25MHC6	1.1	0.1	0.5	0.64	0.40	0.66	15	2	7	10	1	5
N OCTANE	0.7	0.0	0.3	0.41	0.00	0.40	10	0	4	6	0	3
223MHC6	0.2	0.0	0.0	0.12	0.00	0.00	3	0	0	2	0	0
ETCYHEXANE	0.4	0.0	0.1	0.23	0.00	0.13	5	0	1	3	0	1
ET BENZENE	1.8	0.2	0.7	1.05	0.79	0.93	23	4	10	15	2	6
M+PXYLENE	6.7	0.7	2.6	3.90	2.77	3.45	87	13	36	54	8	22
2+4MC8	0.8	0.1	0.3	0.47	0.40	0.40	11	2	4	7	1	3
O XYLENE	2.6	0.2	1.0	1.52	0.79	1.33	34	4	14	21	2	9
N NONANE	0.5	0.0	0.2	0.29	0.00	0.27	7	0	3	4	0	2
IPRBENZENE	0.4	0.0	0.2	0.23	0.00	0.27	5	0	3	3	0	2
NPRBENZENE	0.4	0.0	0.1	0.23	0.00	0.13	5	0	1	3	0	1
1M3ETBENZ	2.0	0.2	0.7	1.17	0.79	0.93	26	4	10	16	2	6
135MEBENZ	0.7	0.1	0.3	0.41	0.40	0.40	9	2	4	6	1	3
1M2ETBENZ	0.6	0.1	0.2	0.35	0.40	0.27	8	2	3	5	1	2
124MBENZ	2.3	0.2	0.9	1.34	0.79	1.20	30	4	13	19	2	8
SBUBENZENE	0.1	0.0	0.1	0.06	0.00	0.13	1	0	1	1	0	1
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.4	0.0	0.2	0.23	0.00	0.27	5	0	3	3	0	2
INDANE	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.3	0.0	0.2	0.17	0.00	0.27	4	0	3	2	0	2
1M3PRBENZ	0.4	0.0	0.2	0.23	0.00	0.27	5	0	3	3	0	2
UNKNOWNS	6.7	0.3	3.2	3.90	1.19	4.25	88	5	45	55	3	28

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 51101
DATE RUN: 05 17 78
CAR: 1977 PLYMOUTH FURY 49S VIN: RL41G7A150083 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	125.1	91.3	183.8
GC PPMC	95.0	75.6	126.2

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	10.4	13.2	13.7	10.95	17.46	10.86	172	309	256	107	192	159
SATURATES	31.4	19.6	47.6	33.05	25.93	37.72	466	410	796	290	255	495
OLEFINS	27.3	23.5	31.1	28.74	31.08	24.64	396	480	508	246	299	316
ACETYLENE	3.5	0.7	3.3	3.68	0.93	2.61	47	13	50	29	8	31
NAPTHENES	1.0	0.8	1.9	1.05	1.06	1.51	15	16	31	9	10	19
AROMATICS	18.8	15.9	24.8	19.79	21.03	19.65	256	305	380	159	190	236
BENZENE	3.2	3.9	4.7	3.37	5.16	3.72	43	74	71	27	46	44
TOLUENE	6.2	5.0	8.0	6.53	6.61	6.34	84	96	123	52	60	76
C8+AROM	9.4	7.0	12.1	9.89	9.26	9.59	130	137	189	81	85	117
UNKNOWN	2.6	1.9	3.8	0.00	0.00	0.00	36	37	59	22	23	37
INDIVIDUAL COMPONENTS												
METHANE	10.4	13.2	13.7	10.95	17.46	10.86	172	309	256	107	192	159
ETHYLENE	12.7	13.8	15.6	13.37	18.25	12.36	184	282	255	114	175	158
ETHANE	2.1	1.9	2.2	2.21	2.51	1.74	33	42	38	20	26	24
ACETYLENE	3.5	0.7	3.3	3.68	0.93	2.61	47	13	50	29	8	31
C3 + C3=	6.6	4.9	6.5	6.95	6.48	5.15	96	100	106	59	62	66
C=C=C	0.2	0.0	0.1	0.21	0.00	0.08	3	0	2	2	0	1
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.5	0.2	0.8	0.53	0.26	0.63	8	4	14	5	3	8
B1 + IB	3.7	2.6	3.7	3.89	3.44	2.93	54	53	60	33	33	38
NC4 +B=1=3	3.7	2.2	6.6	3.89	2.91	5.23	56	47	112	35	29	69
TBUTENE-2	0.5	0.4	0.7	0.53	0.53	0.55	7	8	11	5	5	7
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.3	0.3	0.4	0.32	0.40	0.32	4	6	7	3	4	4
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.1	0.2	0.21	0.13	0.16	3	2	3	2	1	2
ISOPENTANE	3.5	2.1	6.5	3.68	2.78	5.15	52	44	109	32	27	68
PENTENE-1	0.2	0.0	0.2	0.21	0.00	0.16	3	0	3	2	0	2
2MBUT-1	0.4	0.2	0.4	0.42	0.26	0.32	6	4	7	4	3	4
NPENTANE	0.7	0.4	1.2	0.74	0.53	0.95	10	8	20	6	5	13
2MB=1=3	0.2	0.1	0.1	0.21	0.13	0.08	3	2	2	2	1	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: S1101
DATE RUN: 05 17 78
CAR: 1977 PLYMOUTH FURY 495 VIN: RL41G7A150083 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.4	0.2	0.6	0.42	0.26	0.48	6	4	10	4	3	6
CISPENT-2	0.2	0.1	0.2	0.21	0.13	0.16	3	2	3	2	1	2
2MBUT-2	0.8	0.5	1.2	0.84	0.66	0.95	12	10	20	7	6	12
22MBUTANE	0.8	0.1	0.1	0.84	0.13	0.08	12	2	2	7	1	1
CYPENTENE	0.1	0.0	0.1	0.11	0.00	0.08	1	0	2	1	0	1
3MPENTENE	0.1	0.0	0.1	0.11	0.00	0.08	1	0	2	1	0	1
CYPENTANE	0.0	0.0	0.2	0.00	0.00	0.16	0	0	3	0	0	2
23MBUTANE	1.3	0.3	1.4	1.37	0.40	1.11	19	6	23	12	4	15
2MPENTANE	1.4	1.1	2.4	1.47	1.46	1.90	21	23	40	13	14	25
3MPENTANE	0.8	0.4	1.3	0.84	0.53	1.03	12	8	22	7	5	14
HEXENE-1	0.3	0.0	0.2	0.32	0.00	0.16	4	0	3	3	0	2
N HEXANE	0.5	0.3	0.8	0.53	0.40	0.63	7	6	13	5	4	8
TC6=3,=2	0.3	0.2	0.5	0.32	0.26	0.40	4	4	8	3	3	5
CC6=3	0.0	0.0	0.1	0.00	0.00	0.08	0	0	2	0	0	1
2MPENTENE2	0.1	0.1	0.2	0.11	0.13	0.16	1	2	3	1	1	2
MCYP43M2C5	0.5	0.4	0.9	0.53	0.53	0.71	7	8	15	5	5	9
24MPENTANE	1.1	0.7	1.7	1.16	0.93	1.35	16	15	28	10	9	18
BENZENE	3.2	3.9	4.7	3.37	5.16	3.72	43	74	71	27	46	44
CYHEXANE	0.1	0.1	0.2	0.11	0.13	0.16	1	2	3	1	1	2
2MC6+23MC5	2.5	1.5	3.8	2.63	1.98	3.01	37	31	63	23	19	39
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.8	0.5	1.2	0.84	0.66	0.95	12	10	20	7	6	12
224MPENTAN	5.5	3.5	8.1	5.79	4.63	6.42	81	73	135	50	45	84
NMEPTANE	0.7	0.4	1.0	0.74	0.53	0.79	10	8	17	6	5	10
MCYHEXANE	0.3	0.2	0.4	0.32	0.26	0.32	4	4	7	3	3	4
25MHEXANE	0.5	0.3	0.7	0.53	0.40	0.55	7	6	12	5	4	7
24MC6+233M	0.6	0.4	0.9	0.63	0.53	0.71	9	8	15	6	5	9
234MC5	1.3	0.8	2.0	1.37	1.06	1.58	19	17	33	12	10	21
TOLUENE	6.2	5.0	8.0	6.53	6.61	6.34	84	96	123	52	60	76
23MC6+4MC7	0.6	0.5	0.9	0.63	0.66	0.71	9	10	15	6	6	9

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 51101
DATE RUN: 05 17 78
CAR: 1977 PLYMOUTH FURY 495 VIN: RL41G7A150083 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	0.6	0.5	1.0	0.63	0.66	0.79	9	10	17	6	6	10
3MHEPTANE	0.6	0.4	0.9	0.63	0.53	0.71	9	8	15	6	5	9
25DMC6	0.5	0.4	0.7	0.53	0.53	0.55	7	8	12	5	5	7
N OCTANE	0.3	0.2	0.5	0.32	0.26	0.40	4	4	8	3	3	5
223MC6	0.0	0.1	0.1	0.00	0.13	0.08	0	2	2	0	1	1
ETCYHEXANE	0.1	0.1	0.2	0.11	0.13	0.16	1	2	3	1	1	2
ET BENZENE	0.9	0.7	1.1	0.95	0.93	0.87	12	14	17	8	8	11
M+PXYLENE	3.3	2.7	4.4	3.47	3.57	3.49	45	52	68	28	32	42
24DMC8	0.3	0.3	0.5	0.32	0.40	0.40	4	6	8	3	4	5
O XYLENE	1.3	1.0	1.6	1.37	1.32	1.27	18	19	25	11	12	15
N NONANE	0.2	0.1	0.3	0.21	0.13	0.24	3	2	5	2	1	3
IPRBENZENE	0.2	0.1	0.2	0.21	0.13	0.16	3	2	3	2	1	2
NPRBENZENE	0.2	0.1	0.2	0.21	0.13	0.16	3	2	3	2	1	2
1M3ETBENZ	1.0	0.7	1.3	1.05	0.93	1.03	14	14	20	9	8	13
135MEBENZ	0.4	0.3	0.5	0.42	0.40	0.40	6	6	8	3	4	5
1M2ETBENZ	0.2	0.2	0.4	0.21	0.26	0.32	3	4	6	2	2	4
124MBENZ	1.3	0.8	1.4	1.37	1.06	1.11	18	16	22	11	10	14
SBUBENZENE	0.1	0.0	0.1	0.11	0.00	0.08	1	0	2	1	0	1
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.2	0.1	0.3	0.21	0.13	0.24	3	2	5	2	1	3
INDANE	0.0	0.0	0.1	0.00	0.00	0.08	0	0	2	0	0	1
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.1	0.2	0.11	0.13	0.16	1	2	3	1	1	2
1M3PRBENZ	0.2	0.2	0.3	0.21	0.26	0.24	3	4	5	2	2	3
UNKNOWNS	2.6	1.9	3.8	2.74	2.51	3.01	36	37	59	22	23	37

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 51102
DATE RUN: 05 18 78
CAR: 1977 PLYMOUTH FURY 49S VIN: RL41G7A150083 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PRUCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	137.0	66.0	164.6
GC PPMC	96.8	53.2	89.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
				MAJOR COMPONENTS								
METHANE	11.3	11.2	10.4	11.67	21.05	11.65	201	263	277	125	164	172
SATURATES	28.8	13.9	25.8	29.75	26.13	28.89	456	293	616	284	182	383
OLEFINS	27.3	14.4	23.8	28.20	27.07	26.65	424	296	555	263	184	345
ACETYLENE	3.9	0.6	3.6	4.03	1.13	4.03	56	11	78	35	7	48
NAPTHENES	1.1	0.3	0.9	1.14	0.56	1.01	17	6	21	11	4	13
AROMATICS	21.0	11.3	21.6	21.69	21.24	24.19	306	218	473	190	136	294
BENZENE	3.6	2.9	3.3	3.72	5.45	3.70	52	55	71	32	34	44
TOLUENE	6.7	3.5	6.5	6.92	6.58	7.28	98	68	142	61	42	88
C8+AROM	10.7	4.9	11.8	11.05	9.21	13.21	159	96	263	99	60	163
UNKNOWN	3.4	1.5	3.2	0.00	0.00	0.00	50	30	71	31	18	44
				INDIVIDUAL COMPONENTS								
METHANE	11.3	11.2	10.4	11.67	21.05	11.65	201	263	277	125	164	172
ETHYLENE	12.8	8.4	11.6	13.22	15.79	12.99	199	173	271	123	107	168
ETHANE	2.0	1.6	1.9	2.07	3.01	2.13	33	35	48	21	22	30
ACETYLENE	3.9	0.6	3.6	4.03	1.13	4.03	56	11	78	35	7	48
C3 + C3=	6.9	3.2	6.0	7.13	6.02	6.72	107	66	140	67	41	87
C=C=C	0.1	0.0	0.1	0.10	0.00	0.11	1	0	2	1	0	1
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.2	0.2	0.2	0.21	0.38	0.22	3	4	5	2	3	3
B1 + IB	3.8	1.6	3.3	3.93	3.01	3.70	59	33	77	37	20	48
NC4 +B=1=3	3.2	1.6	2.7	3.31	3.01	3.02	51	34	65	32	21	41
TBUTENE-2	0.6	0.2	0.4	0.62	0.38	0.45	9	4	9	6	3	6
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.3	0.2	0.3	0.31	0.38	0.34	5	4	7	3	3	4
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.1	0.10	0.00	0.11	2	0	2	1	0	1
ISOPENTANE	3.6	1.6	3.0	3.72	3.01	3.36	57	34	72	36	21	45
PENTENE-1	0.2	0.0	0.1	0.21	0.00	0.11	3	0	2	2	0	1
2MBUT-1	0.3	0.1	0.3	0.31	0.19	0.34	5	2	7	3	1	4
NPENTANE	0.6	0.3	0.6	0.62	0.56	0.67	10	6	14	6	4	9
2MB=1=3	0.2	0.0	0.0	0.21	0.00	0.00	3	0	0	2	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 51102
DATE RUN: 05 18 78
CAR: 1977 PLYMOUTH FURY 49S VIN: RL41G7A150083 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.4	0.1	0.3	0.41	0.19	0.34	6	2	7	4	1	4
CISPENT-2	0.1	0.0	0.1	0.10	0.00	0.11	2	0	2	1	0	1
2MBUT-2	0.7	0.3	0.6	0.72	0.56	0.67	11	6	14	7	4	9
22MBUTANE	0.2	0.0	0.0	0.21	0.00	0.00	3	0	0	2	0	0
CYPENTENE	0.1	0.0	0.1	0.10	0.00	0.11	2	0	2	1	0	1
3MPLNTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.1	0.10	0.00	0.11	2	0	2	1	0	1
23MBUTANE	0.6	0.2	0.4	0.62	0.38	0.45	10	4	10	6	3	6
2MPENTANE	1.5	0.6	1.9	1.55	1.13	2.13	24	13	45	15	8	28
3MPENTANE	0.7	0.3	0.6	0.72	0.56	0.67	11	6	14	7	4	9
HEXENE-1	0.2	0.0	0.2	0.21	0.00	0.22	3	0	5	2	0	3
N HEXANE	0.5	0.2	0.4	0.52	0.38	0.45	8	4	10	5	3	6
TC6=3,=2	0.4	0.1	0.2	0.41	0.19	0.22	6	2	5	4	1	3
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.1	0.2	0.1	0.10	0.38	0.11	2	4	2	1	3	1
MCYP43M2C5	0.5	0.0	0.4	0.52	0.00	0.45	8	0	9	5	0	6
24MPENTANE	1.0	0.5	0.9	1.03	0.94	1.01	16	10	21	10	7	13
BENZENE	3.6	2.9	3.3	3.72	5.45	3.70	52	55	71	32	34	44
CYHEXANE	0.1	0.1	0.1	0.10	0.19	0.11	2	2	2	1	1	1
2MC6+23MC5	2.4	1.1	2.1	2.48	2.07	2.35	38	23	50	24	14	31
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.7	0.3	0.7	0.72	0.56	0.78	11	6	17	7	4	10
224MPENTAN	5.4	2.6	4.8	5.58	4.89	5.38	85	54	114	53	34	71
MHEPTANE	0.6	0.2	0.6	0.62	0.38	0.67	10	4	14	6	3	9
MCYHEXANE	0.3	0.1	0.2	0.31	0.19	0.22	5	2	5	3	1	3
25MHEXANE	0.5	0.2	0.4	0.52	0.38	0.45	8	4	9	5	3	6
24MC6+233M	0.6	0.3	0.5	0.62	0.56	0.56	9	6	12	6	4	7
234MC5	1.3	0.6	1.1	1.34	1.13	1.23	21	13	26	13	8	16
TOLUENE	6.7	3.5	6.5	6.92	6.58	7.28	98	68	142	61	42	88
23MC6+4MC7	0.6	0.3	0.6	0.62	0.56	0.67	9	6	14	6	4	9

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 51102
DATE RUN: 05 18 78
CAR: 1977 PLYMOUTH FURY 49S VIN: RL41G7A150083 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	0.7	0.3	0.6	0.72	0.56	0.67	11	6	14	7	4	9
3MHEPTANE	0.6	0.3	0.5	0.62	0.56	0.56	9	6	12	6	4	7
25DMC6	0.5	0.2	0.5	0.52	0.38	0.56	8	4	12	5	3	7
N OCTANE	0.3	0.1	0.3	0.31	0.19	0.34	5	2	7	3	1	4
223MC6	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ETCYHEXANE	0.1	0.1	0.1	0.10	0.19	0.11	2	2	2	1	1	1
ET BENZENE	0.9	0.5	1.0	0.93	0.94	1.12	13	10	22	8	6	14
M+PXYLENE	3.8	1.8	4.3	3.93	3.38	4.82	56	35	95	35	22	59
2+4MC8	0.3	0.2	0.3	0.31	0.38	0.34	5	4	7	3	3	4
O XYLENE	1.5	0.7	1.6	1.55	1.32	1.79	22	14	35	14	8	22
N NONANE	0.2	0.1	0.2	0.21	0.19	0.22	3	2	5	2	1	3
IPRBENZENE	0.2	0.1	0.2	0.21	0.19	0.22	3	2	4	2	1	3
NPRBENZENE	0.2	0.1	0.2	0.21	0.19	0.22	3	2	4	2	1	3
1M3ETBENZ	1.3	0.5	1.4	1.34	0.94	1.57	19	10	31	12	6	19
135MEBENZ	0.5	0.2	0.5	0.52	0.38	0.56	7	4	11	5	2	7
1M2ETBENZ	0.2	0.1	0.2	0.21	0.19	0.22	3	2	4	2	1	3
124MBENZ	1.5	0.6	1.6	1.55	1.13	1.79	22	12	36	14	7	22
SBUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.3	0.1	0.3	0.31	0.19	0.34	4	2	7	3	1	4
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.1	0.2	0.10	0.19	0.22	1	2	4	1	1	3
1M3PRBENZ	0.2	0.1	0.3	0.21	0.19	0.34	3	2	7	2	1	4
UNKNOWNS	3.4	1.5	3.2	3.51	2.82	3.58	50	30	71	31	18	44

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60001
DATE RUN: 07 27 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L85223673 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 0

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	2257.0	19.0	46.1
GC PPMC	1918.4	15.9	35.1

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	54.1	4.6	5.3	2.82	28.93	15.10	842	71	79	523	44	49
SATURATES	1137.9	7.6	19.0	59.32	47.80	54.13	15859	105	255	9857	66	159
OLEFINS	204.1	0.7	3.4	10.64	4.40	9.69	2778	9	45	1727	6	28
ACETYLENE	25.4	0.0	0.0	1.32	0.00	0.00	321	0	0	199	0	0
NAPTHENES	54.9	0.4	0.7	2.86	2.52	1.99	747	5	9	464	3	6
AROMATICS	240.7	1.4	3.8	12.55	8.81	10.83	3077	18	47	1912	11	29
BENZENE	21.1	0.3	0.6	1.10	1.89	1.71	267	4	7	166	2	5
TOLUENE	61.3	0.4	0.9	3.20	2.52	2.56	784	5	11	487	3	7
C8+AROM	158.3	0.7	2.3	8.25	4.40	6.55	2057	9	29	1278	6	18
UNKNOWN	201.3	1.2	2.9	0.00	0.00	0.00	2622	16	36	1630	10	23
INDIVIDUAL COMPONENTS												
METHANE	54.1	4.6	5.3	2.82	28.93	15.10	842	71	79	523	44	49
ETHYLENE	36.7	0.7	2.3	1.91	4.40	6.55	500	9	30	310	6	19
ETHANE	4.7	0.6	1.0	0.24	3.77	2.85	69	9	14	43	5	9
ACETYLENE	25.4	0.0	0.0	1.32	0.00	0.00	321	0	8	199	0	0
C3 + C3=	13.0	0.0	0.5	0.68	0.00	1.42	177	0	7	110	0	4
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	18.6	0.2	0.5	0.97	1.26	1.42	262	3	7	163	2	4
B1 + IB	9.7	0.0	0.0	0.51	0.00	0.00	132	0	0	82	0	0
NC4 +B=1=3	128.4	1.1	2.9	6.69	6.92	8.26	1811	15	39	1125	10	24
TBUTENE-2	8.8	0.0	0.2	0.46	0.00	0.57	120	0	3	74	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	8.0	0.0	0.1	0.42	0.00	0.28	109	0	1	68	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	2.6	0.0	0.0	0.14	0.00	0.00	35	0	0	22	0	0
ISOPENTANE	155.8	1.1	2.6	8.12	6.92	7.41	2182	15	35	1356	10	22
PENTENE-1	7.3	0.0	0.0	0.38	0.00	0.00	99	0	0	62	0	0
2MBUT-1	12.3	0.0	0.0	0.64	0.00	0.00	167	0	0	104	0	0
NPENTANE	25.0	0.3	0.5	1.30	1.89	1.42	350	4	7	218	3	4
2MB=1=3	11.2	0.0	0.0	0.58	0.00	0.00	148	0	0	92	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60001
DATE RUN: 07 27 78
CAR: 1978 CHEVROLET ST #-CALIF VIN: 1L35LAS223673 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	19.8	0.0	0.1	1.03	0.00	0.28	270	0	1	168	0	1
CISPENT-2	9.9	0.0	0.0	0.52	0.00	0.00	135	0	0	84	0	0
2MBUT-2	22.2	0.0	0.1	1.16	0.00	0.28	302	0	1	188	0	1
22MBUTANE	0.7	0.0	0.1	0.04	0.00	0.28	10	0	1	6	0	1
CYPENTENE	3.7	0.0	0.0	0.19	0.00	0.00	49	0	0	30	0	0
3MPENTENE	3.7	0.0	0.0	0.19	0.00	0.00	50	0	0	31	0	0
CYPENTANE	3.5	0.2	0.0	0.18	1.26	0.00	48	3	0	30	2	0
23MBUTANE	30.7	0.3	0.7	1.60	1.89	1.99	428	4	9	266	3	6
2MPENTANE	71.7	0.4	1.2	3.74	2.52	3.42	999	6	16	621	3	10
3MPENTANE	39.1	0.3	0.6	2.04	1.89	1.71	545	4	8	339	3	5
HEXENE-1	10.2	0.0	0.1	0.53	0.00	0.28	139	0	1	86	0	1
N HEXANE	15.5	0.1	0.3	0.81	0.63	0.85	216	1	4	134	1	3
TC6=3,=2	10.8	0.0	0.0	0.56	0.00	0.00	147	0	0	91	0	0
CC6=3	6.0	0.0	0.0	0.31	0.00	0.00	82	0	0	51	0	0
2MPENTENE2	8.2	0.0	0.0	0.43	0.00	0.00	112	0	0	69	0	0
MCYP43M2C5	26.8	0.1	0.4	1.40	0.63	1.14	365	1	5	227	1	3
24MPENTANE	51.8	0.2	0.7	2.70	1.26	1.99	720	3	9	447	2	6
BENZENE	21.1	0.3	0.6	1.10	1.89	1.71	267	4	7	166	2	5
CYHEXANE	5.6	0.0	0.0	0.29	0.00	0.00	76	0	0	47	0	0
2MC6+23MC5	115.3	0.5	1.3	6.01	3.14	3.70	1602	7	17	995	4	11
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	26.3	0.1	0.4	1.37	0.63	1.14	365	1	5	227	1	3
224MPENTAN	216.2	1.5	3.5	11.27	9.43	9.97	2996	21	47	1862	13	29
NHEPTANE	18.4	0.0	0.2	0.96	0.00	0.57	256	0	3	159	0	2
MCYHEXANE	13.0	0.1	0.2	0.68	0.63	0.57	177	1	3	110	1	2
25MHEXANE	21.2	0.0	0.0	1.11	0.00	0.00	294	0	0	183	0	0
24MC6+23IM	16.6	0.2	0.5	0.87	1.26	1.42	230	3	7	143	2	4
234MC5	68.0	0.3	0.8	3.54	1.89	2.28	942	4	11	586	3	7
TOLUENE	61.3	0.4	0.9	3.20	2.52	2.56	784	5	11	487	3	7
23MC6+4MC7	20.3	0.1	0.2	1.06	0.63	0.57	281	1	3	175	1	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60031
DATE RUN: 07 27 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L85223673 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
3&4MHEXANE	17.5	0.1	0.2	0.91	0.63	0.57	242	1	3	151	1	2
3MHEPTANE	18.3	0.1	0.2	0.95	0.63	0.57	254	1	3	158	1	2
255MC6	22.0	0.1	0.3	1.15	0.63	0.85	304	1	4	189	1	2
N OCTANE	7.5	0.0	0.1	0.39	0.00	0.28	104	0	1	65	0	1
223MC6	5.0	0.0	0.0	0.26	0.00	0.00	69	0	0	43	0	0
ETCYHEXANE	6.0	0.0	0.1	0.31	0.00	0.28	82	0	1	51	0	1
ET BENZENE	11.7	0.0	0.1	0.61	0.00	0.28	151	0	1	94	0	1
M+PXYLENE	33.7	0.1	0.5	1.76	0.63	1.42	434	1	6	270	1	4
2+4MC8	9.9	0.0	0.1	0.52	0.00	0.28	137	0	1	85	0	1
O XYLENE	17.3	0.1	0.2	0.90	0.63	0.57	223	1	2	138	1	2
N NONANE	11.2	0.0	0.1	0.58	0.00	0.28	155	0	1	96	0	1
IPRBENZENE	8.0	0.0	0.1	0.42	0.00	0.28	104	0	1	64	0	1
NPHBENZENE	4.5	0.0	0.0	0.23	0.00	0.00	58	0	0	36	0	0
1M3ETBENZ	15.3	0.1	0.2	0.80	0.63	0.57	198	1	2	123	1	2
135MEBENZ	6.5	0.1	0.0	0.34	0.63	0.00	84	1	0	52	1	0
1M2ETBENZ	15.8	0.0	0.4	0.82	0.00	1.14	205	0	5	127	0	3
124MBENZ	18.8	0.2	0.4	0.98	1.26	1.14	244	3	5	151	2	3
SBUBENZENE	4.5	0.1	0.1	0.23	0.63	0.28	59	1	1	36	1	1
N DECANE	2.2	0.0	0.0	0.11	0.00	0.00	30	0	0	19	0	0
123MBENZ	3.7	0.0	0.1	0.19	0.00	0.28	48	0	1	30	0	1
INDANE	4.1	0.0	0.0	0.21	0.00	0.00	52	0	0	32	0	0
13EBENZENE	1.9	0.0	0.0	0.10	0.00	0.00	25	0	0	15	0	0
MBUBENZENE	6.0	0.0	0.1	0.31	0.00	0.28	78	0	1	49	0	1
1M3PRBENZ	6.5	0.0	0.1	0.34	0.00	0.28	85	0	1	53	0	1
UNKNOWNS	201.3	1.2	2.9	10.49	7.55	8.26	2622	16	36	1630	10	23

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60002
DATE RUN: 08 03 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: HYEK FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 0

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	758.5	28.9	55.3
GC PPMC	721.2	20.3	51.1

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	55.9	3.9	6.9	7.75	19.21	13.50	757	80	85	470	50	53
SATURATES	341.6	10.5	32.7	47.37	51.72	63.99	4141	193	362	2573	120	225
OLEFINS	112.3	1.1	4.3	15.57	5.42	8.41	1330	20	47	826	12	29
ACETYLENE	43.6	0.0	0.4	6.05	0.00	0.78	479	0	4	298	0	2
NAPTHENES	16.1	0.4	1.0	2.23	1.97	1.96	191	7	11	118	4	7
AROMATICS	102.0	1.8	3.4	14.14	8.87	6.66	1134	30	35	705	19	21
BENZENE	14.2	0.3	0.6	1.97	1.48	1.17	156	5	6	97	3	4
TOLUENE	25.6	0.5	1.3	3.55	2.46	2.54	285	8	13	177	5	8
C8+AROM	62.2	1.0	1.5	8.62	4.93	2.94	703	17	15	437	11	10
UNKNOWN	49.7	2.6	2.4	0.00	0.00	0.00	563	45	25	350	28	15
INDIVIDUAL COMPONENTS												
METHANE	55.9	3.9	6.9	7.75	19.21	13.50	757	80	85	470	50	53
ETHYLENE	36.0	1.0	3.5	4.99	4.93	6.85	426	18	38	265	11	24
ETHANE	4.6	0.5	1.6	0.64	2.46	3.13	58	10	19	36	6	12
ACETYLENE	43.6	0.0	0.4	6.05	0.00	0.78	479	0	4	298	0	2
C3 + C3=	15.3	0.1	0.0	2.12	0.49	0.00	181	2	0	113	1	0
C=C=C	0.7	0.0	0.0	0.10	0.00	0.00	8	0	0	5	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	6.1	0.3	0.9	0.85	1.48	1.76	75	6	10	46	3	6
B1 + IB	9.6	0.0	0.2	1.33	0.00	0.39	114	0	2	71	0	1
NC4 +B=1=3	37.4	1.7	5.5	5.19	8.37	10.76	459	32	62	285	20	38
TBUTENE-2	3.8	0.0	0.1	0.53	0.00	0.20	45	0	1	28	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	3.5	0.0	0.1	0.49	0.00	0.20	41	0	1	26	0	1
B=1=2	0.1	0.0	0.0	0.01	0.00	0.00	1	0	0	1	0	0
3MB1	1.0	0.0	0.0	0.14	0.00	0.00	12	0	0	7	0	0
ISOPENTANE	46.6	1.7	5.2	6.46	8.37	10.18	568	31	58	353	20	36
PENTENE-1	2.3	0.0	0.0	0.32	0.00	0.00	27	0	0	17	0	0
2MBUT-1	3.5	0.0	0.0	0.49	0.00	0.00	41	0	0	26	0	0
NPENTANE	7.6	0.3	0.8	1.05	1.48	1.57	93	6	9	58	3	6
2MB=1=3	0.3	0.0	0.0	0.04	0.00	0.00	3	0	0	2	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60002
DATE RUN: 08 03 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35LA5223673 DRIVER: MYER FUEL: WINTER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG 1	2	3		BAG 1	2	3		BAG 1	2	3		BAG 1	2	3	
TPENT-2	0.5	0.0	0.1		0.90	0.00	0.20		77	0	1		48	0	1	
CISPENT-2	3.5	0.0	0.0		0.49	0.00	0.00		41	0	0		26	0	0	
2MBUT-2	10.7	0.0	0.1		1.48	0.00	0.20		127	0	1		79	0	1	
22MBUTANE	0.4	0.0	0.0		0.06	0.00	0.00		5	0	0		3	0	0	
CYPENTENE	1.6	0.0	0.0		0.22	0.00	0.00		18	0	0		11	0	0	
3MPENTENE	1.7	0.0	0.0		0.24	0.00	0.00		20	0	0		13	0	0	
CYPENTANE	1.3	0.1	0.1		0.18	0.49	0.20		15	2	1		10	1	1	
23MBUTANE	6.2	0.2	0.8		1.14	0.99	1.57		99	4	9		62	2	6	
2MPENTANE	19.7	1.0	2.3		2.73	4.93	4.50		239	18	25		148	11	16	
3MPENTANE	10.9	0.3	1.0		1.51	1.48	1.96		132	6	11		82	3	7	
HEXENE-1	2.7	0.0	0.1		0.37	0.00	0.20		32	0	1		20	0	1	
N HEXANE	4.2	0.2	0.4		0.58	0.99	0.78		51	4	4		32	2	3	
EC6=3,=2	5.2	0.0	0.1		0.72	0.00	0.20		62	0	1		38	0	1	
CC6=3	1.7	0.0	0.0		0.24	0.00	0.00		20	0	0		13	0	0	
2MPENTENE2	2.6	0.0	0.0		0.36	0.00	0.00		31	0	0		19	0	0	
MCYP4M2C5	7.9	0.2	0.5		1.10	0.99	0.98		94	4	5		58	2	3	
24MPENTANE	15.3	0.3	1.2		2.12	1.48	2.35		185	6	13		115	3	8	
BENZENE	14.2	0.3	0.6		1.97	1.48	1.17		156	5	6		97	3	4	
CYHEXANE	1.4	0.0	0.1		0.19	0.00	0.20		17	0	1		10	0	1	
2MC6+23MC5	32.5	0.7	2.4		4.51	3.45	4.70		393	13	26		244	8	16	
24MHEXANE	0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0	
3MHEXANE	7.5	0.2	0.6		1.04	0.99	1.17		91	4	7		56	2	4	
224MPENTAN	65.7	2.0	6.0		9.11	9.85	11.74		792	37	66		492	23	41	
NHEPTANE	6.6	0.1	0.2		0.92	0.49	0.39		80	2	2		50	1	1	
MCYHEXANE	3.9	0.1	0.2		0.54	0.49	0.39		46	2	2		29	1	1	
25MHEXANE	9.6	0.0	0.0		1.33	0.00	0.00		116	0	0		72	0	0	
24MC6+233M	4.6	0.2	0.8		0.64	0.99	1.57		55	4	9		34	2	5	
234MC5	20.4	0.3	1.2		2.83	1.48	2.35		246	5	13		153	3	8	
TOLUENE	25.6	0.5	1.3		3.55	2.46	2.54		285	8	13		177	5	8	
23MC6+4MC7	6.3	0.1	0.3		0.87	0.49	0.59		76	2	3		47	1	2	

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60002
DATE RUN: 08 03 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: MYER FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	5.3	0.1	0.3	0.73	0.49	0.59	64	2	3	40	1	2
3MHEPTANE	5.4	0.1	0.3	0.75	0.49	0.59	65	2	3	40	1	2
255MC6	6.7	0.1	0.4	0.93	0.49	0.78	81	2	4	50	1	3
N OCTANE	2.3	0.0	0.1	0.32	0.00	0.20	28	0	1	17	0	1
223MC6	1.3	0.0	0.1	0.18	0.00	0.20	16	0	1	10	0	1
ETCYHEXANE	1.6	0.0	0.1	0.22	0.00	0.20	19	0	1	12	0	1
ET BENZENE	4.7	0.0	0.1	0.65	0.00	0.20	53	0	1	33	0	1
M+PXYLENE	16.4	0.1	0.3	2.27	0.49	0.59	184	2	3	114	1	2
2+4MC8	2.8	0.1	0.1	0.39	0.49	0.20	34	2	1	21	1	1
O XYLENE	7.1	0.1	0.2	0.98	0.49	0.39	80	2	2	49	1	1
N NONANE	3.1	0.0	0.2	0.43	0.00	0.39	37	0	2	23	0	1
IPHBENZENE	2.2	0.0	0.1	0.31	0.00	0.20	25	0	1	15	0	1
NPRBENZENE	1.3	0.0	0.0	0.18	0.00	0.00	15	0	0	9	0	0
1M3ETBENZ	6.7	0.1	0.1	0.93	0.49	0.20	76	2	1	47	1	1
135MEBENZ	3.6	0.0	0.0	0.42	0.00	0.00	34	0	0	21	0	0
1M2ETBENZ	4.1	0.1	0.2	0.57	0.49	0.39	46	2	2	29	1	1
124MBENZ	8.4	0.2	0.2	1.16	0.99	0.39	95	3	2	59	2	1
SBUBENZENE	1.1	0.1	0.1	0.15	0.49	0.20	12	2	1	8	1	1
N DECANE	0.5	0.0	0.0	0.07	0.00	0.00	6	0	0	4	0	0
123MBENZ	1.6	0.1	0.0	0.22	0.49	0.00	18	2	0	11	1	0
INDANE	0.8	0.0	0.0	0.11	0.00	0.00	9	0	0	6	0	0
13EBENZENE	0.4	0.0	0.0	0.06	0.00	0.00	5	0	0	3	0	0
NBUBENZENE	2.0	0.1	0.1	0.28	0.49	0.20	23	2	1	14	1	1
1M3PRBENZ	2.4	0.1	0.1	0.33	0.49	0.20	27	2	1	17	1	1
UNKNOWNS	49.7	2.6	2.4	6.89	12.81	4.70	563	45	25	350	28	15

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60201
DATE RUN: 07 26 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 20

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	359.6	21.1	55.0
GC PPMC	296.5	18.0	56.2

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	24.7	8.1	6.2	8.33	45.00	11.03	391	150	74	243	93	46
SATURATES	133.9	8.1	34.2	45.16	45.00	60.85	1896	134	364	1179	83	226
OLEFINS	46.5	0.5	5.4	15.68	2.78	9.61	643	8	56	400	5	35
ACETYLENE	17.1	0.0	0.0	5.77	0.00	0.00	220	0	0	136	0	0
NAPTHENES	6.9	0.3	1.1	2.33	1.67	1.96	95	5	11	59	3	7
AROMATICS	46.0	0.6	2.9	15.51	3.33	5.16	598	9	28	371	6	18
BENZENE	6.1	0.2	0.5	2.06	1.11	0.89	78	3	5	49	2	3
TOLUENE	12.4	0.4	1.3	4.18	2.22	2.31	161	6	13	100	4	8
C8+AROM	27.5	0.0	1.1	9.27	0.00	1.96	363	0	11	226	0	7
UNKNOWN	21.4	0.4	6.4	0.00	0.00	0.00	283	6	64	176	4	40
INDIVIDUAL COMPONENTS												
METHANE	24.7	8.1	6.2	8.33	45.00	11.03	391	150	74	243	93	46
ETHYLENE	17.2	0.3	2.6	5.80	1.67	4.63	238	5	27	148	3	17
ETHANE	2.9	0.2	1.3	0.98	1.11	2.31	43	3	14	27	2	9
ACETYLENE	17.1	0.0	0.0	5.77	0.00	0.00	220	0	0	136	0	0
C3 + C3=	7.5	0.2	0.7	2.53	1.11	1.25	104	3	7	64	2	5
C=C=C	0.2	0.0	0.0	0.07	0.00	0.00	3	0	0	2	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	2.1	0.1	1.1	0.71	0.56	1.96	30	2	12	19	1	7
B1 + IB	4.5	0.0	0.2	1.52	0.00	0.36	62	0	2	39	0	1
NC4 +B=1=3	13.4	0.9	6.4	4.52	5.00	11.39	192	15	69	119	9	43
TBUTENE-2	1.4	0.0	0.2	0.47	0.00	0.36	19	0	2	12	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.3	0.0	0.3	0.44	0.00	0.53	18	0	3	11	0	2
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.4	0.0	0.1	0.13	0.00	0.18	6	0	1	3	0	1
ISOPENTANE	15.7	1.6	5.6	5.30	8.89	9.96	223	27	60	139	17	37
PENTENE-1	0.7	0.0	0.0	0.24	0.00	0.00	10	0	0	6	0	0
2MBUT-1	1.0	0.0	0.0	0.34	0.00	0.00	14	0	0	9	0	0
NPENTANE	3.0	1.9	1.0	1.01	10.56	1.78	43	32	11	27	20	7
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60201
DATE RUN: 07 26 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVEN: WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	2.2	0.0	0.1	0.74	0.00	0.18	30	0	1	19	0	1
CISPENT-2	1.1	0.0	0.3	0.37	0.00	0.53	15	0	3	9	0	2
2MBUT-2	3.2	0.0	0.4	1.08	0.00	0.71	44	0	4	28	0	3
22MBUTANE	0.2	0.4	0.0	0.07	2.22	0.00	3	7	0	2	4	0
CYPENTENE	0.6	0.0	0.0	0.20	0.00	0.00	8	0	0	5	0	0
3MPENTENE	0.6	0.0	0.0	0.20	0.00	0.00	8	0	0	5	0	0
CYPENTANE	0.6	0.1	0.1	0.20	0.56	0.18	8	2	1	5	1	1
23MBUTANE	4.2	0.2	0.7	1.42	1.11	1.25	59	3	7	37	2	5
2MPENTANE	8.3	0.5	2.2	2.80	2.78	3.91	118	8	23	73	5	15
3MPENTANE	4.6	0.2	1.1	1.55	1.11	1.96	65	3	12	40	2	7
HEXENE-1	1.2	0.0	0.2	0.40	0.00	0.36	17	0	2	10	0	1
N HEXANE	1.7	0.2	0.4	0.57	1.11	0.71	24	3	4	15	2	3
TC6=3,=2	1.8	0.0	0.2	0.61	0.00	0.36	25	0	2	15	0	1
CC6=3	0.6	0.0	0.1	0.20	0.00	0.18	8	0	1	5	0	1
2MPENTENE2	1.0	0.0	0.0	0.34	0.00	0.00	14	0	0	9	0	0
MCYP43M2C5	3.4	0.1	0.6	1.15	0.56	1.07	47	2	6	29	1	4
24MPENTANE	6.2	0.1	1.3	2.09	0.56	2.31	88	2	14	54	1	9
BENZENE	6.1	0.2	0.5	2.06	1.11	0.89	78	3	5	49	2	3
CYHEXANE	0.6	0.0	0.1	0.20	0.00	0.18	8	0	1	5	0	1
2MC6+23MC5	13.0	0.3	2.3	4.38	1.67	4.09	184	5	24	114	3	15
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.0	0.1	0.6	1.01	0.56	1.07	42	2	6	26	1	4
224MPENTAN	26.3	1.1	5.8	8.87	6.11	10.32	370	18	61	230	11	38
NHEPTANE	2.4	0.1	0.4	0.81	0.56	0.71	34	2	4	21	1	3
MCYHEXANE	1.6	0.1	0.2	0.54	0.56	0.36	22	2	2	14	1	1
25MHEXANE	3.3	0.0	0.0	1.11	0.00	0.00	46	0	0	29	0	0
24MC6+233M	2.4	0.1	0.9	0.81	0.56	1.60	34	2	10	21	1	6
234MC5	7.4	0.1	1.1	2.50	0.56	1.96	104	2	12	65	1	7
TOLUENE	12.4	0.4	1.3	4.18	2.22	2.31	161	6	13	100	4	8
23MC6+4MC7	2.6	0.0	0.4	0.88	0.00	0.71	37	0	4	23	0	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60201
DATE RUN: 07 26 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.2	0.0	0.3	0.74	0.00	0.53	31	0	3	19	0	2
3MHEPTANE	2.2	0.0	0.3	0.74	0.00	0.53	31	0	3	19	0	2
255MC6	2.8	0.0	0.5	0.94	0.00	0.89	39	0	5	24	0	3
N OCTANE	0.9	0.0	0.1	0.30	0.00	0.18	13	0	1	8	0	1
223MC6	0.4	0.0	0.1	0.13	0.00	0.18	6	0	1	3	0	1
ETCYHEXANE	0.7	0.0	0.1	0.24	0.00	0.18	10	0	1	6	0	1
ET BENZENE	2.2	0.0	0.1	0.74	0.00	0.18	29	0	1	18	0	1
M+PXYLENE	7.5	0.0	0.3	2.53	0.00	0.53	98	0	3	61	0	2
244MC8	1.2	0.0	0.1	0.40	0.00	0.18	17	0	1	10	0	1
O XYLENE	3.2	0.0	0.2	1.08	0.00	0.36	42	0	2	26	0	1
N NONANE	1.3	0.0	0.2	0.44	0.00	0.36	18	0	2	11	0	1
IPRBENZENE	0.9	0.0	0.1	0.30	0.00	0.18	12	0	1	7	0	1
NPRBENZENE	0.6	0.0	0.0	0.20	0.00	0.00	8	0	0	5	0	0
1M3ETBENZ	3.1	0.0	0.1	1.05	0.00	0.18	41	0	1	25	0	1
135MEBENZ	1.1	0.0	0.0	0.37	0.00	0.00	14	0	0	9	0	0
1M2ETBENZ	1.6	0.0	0.0	0.54	0.00	0.00	21	0	0	13	0	0
124MBENZ	3.7	0.0	0.2	1.25	0.00	0.36	49	0	2	30	0	1
SBUBENZENE	0.5	0.0	0.1	0.17	0.00	0.18	7	0	1	4	0	1
N DECANE	0.2	0.0	0.0	0.07	0.00	0.00	3	0	0	2	0	0
123MBENZ	0.9	0.0	0.0	0.30	0.00	0.00	12	0	0	7	0	0
INDANE	0.4	0.0	0.0	0.13	0.00	0.00	5	0	0	3	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.8	0.0	0.0	0.27	0.00	0.00	11	0	0	7	0	0
1M3PRBENZ	1.0	0.0	0.0	0.34	0.00	0.00	13	0	0	8	0	0
UNKNOWNS	21.4	0.4	6.4	7.22	2.22	11.39	283	6	64	176	4	40

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60202
DATE RUN: 08 04 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: WAND FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 20

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	354.8	32.1	84.7
GC PPMC	362.7	28.7	77.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	29.5	4.6	7.5	8.13	16.03	9.70	377	85	100	234	53	62
SATURATES	166.9	18.1	52.4	46.02	63.07	67.79	1908	298	626	1186	185	389
OLEFINS	56.8	2.2	8.2	15.66	7.67	10.61	634	35	96	394	22	59
ACETYLENE	20.1	0.0	0.0	5.54	0.00	0.00	208	0	0	129	0	0
NAPTHENES	8.1	0.5	1.6	2.23	1.74	2.07	90	8	19	56	5	12
AROMATICS	57.3	1.8	5.4	15.80	6.27	6.99	601	27	59	373	17	37
BENZENE	7.2	0.3	0.9	1.99	1.05	1.16	75	4	10	46	3	6
TOLUENE	14.9	0.7	2.1	4.11	2.44	2.72	156	11	23	97	7	14
C8+AROM	35.2	0.8	2.4	9.71	2.79	3.10	375	12	27	233	8	17
UNKNOWN	24.0	1.5	2.2	0.00	0.00	0.00	256	23	25	159	14	15
INDIVIDUAL COMPONENTS												
METHANE	29.5	4.6	7.5	8.13	16.03	9.70	377	85	100	234	53	62
ETHYLENE	20.5	1.6	4.4	5.65	5.57	5.69	229	26	51	142	16	32
ETHANE	3.1	0.9	1.4	0.85	3.14	1.81	37	16	18	23	10	11
ACETYLENE	20.1	0.0	0.0	5.54	0.00	0.00	208	0	0	129	0	0
C3 + C3=	8.7	0.2	0.6	2.40	0.70	0.78	97	3	7	60	2	4
C=C=C	0.2	0.0	0.0	0.06	0.00	0.00	2	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	2.6	0.6	1.6	0.72	2.09	2.07	30	10	19	19	6	12
B1 + IB	5.3	0.1	0.3	1.46	0.35	0.39	59	2	3	37	1	2
NC4 +B=1=3	18.0	3.2	9.5	4.96	11.15	12.29	208	53	115	129	33	71
TBUTENE-2	1.9	0.1	0.4	0.52	0.35	0.52	21	2	5	13	1	3
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.5	0.0	0.2	0.41	0.00	0.26	17	0	2	10	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.5	0.0	0.0	0.14	0.00	0.00	6	0	0	3	0	0
ISOPENTANE	21.5	2.9	8.7	5.93	10.10	11.25	247	48	104	154	30	65
PENTENE-1	0.8	0.0	0.0	0.22	0.00	0.00	9	0	0	6	0	0
2MBUT-1	1.4	0.0	0.0	0.39	0.00	0.00	16	0	0	10	0	0
NPENTANE	3.6	0.5	1.4	0.99	1.74	1.81	41	8	17	26	5	10
2MB=1=3	0.2	0.0	0.0	0.06	0.00	0.00	2	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60202
DATE RUN: 08 04 76
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	2.8	0.0	0.2	0.77	0.00	0.26	31	0	2	19	0	1
CISPENT-2	1.4	0.0	0.1	0.39	0.00	0.13	16	0	1	10	0	1
2MBUT-2	4.7	0.1	0.5	1.30	0.35	0.65	52	2	6	33	1	4
22MBUTANE	0.3	0.0	0.0	0.08	0.00	0.00	3	0	0	2	0	0
CYPENTENE	0.6	0.0	0.0	0.17	0.00	0.00	7	0	0	4	0	0
3MPENTENE	0.4	0.0	0.0	0.11	0.00	0.00	4	0	0	3	0	0
CYPENTANE	0.6	0.0	0.1	0.17	0.00	0.13	7	0	1	4	0	1
23MBUTANE	5.1	0.4	1.2	1.41	1.39	1.55	58	7	14	36	4	9
2MPENTANE	10.3	1.3	3.5	2.84	4.53	4.53	118	21	42	73	13	26
3MPENTANE	5.5	0.6	1.7	1.52	2.09	2.20	63	10	20	39	6	13
HEXENE-1	1.4	0.1	0.2	0.39	0.35	0.26	16	2	2	10	1	1
N HEXANE	2.1	0.2	0.5	0.58	0.70	0.65	24	3	6	15	2	4
TC6=3.=2	2.5	0.0	1.1	0.69	0.00	1.42	28	0	13	17	0	8
CC6=3	0.8	0.0	0.1	0.22	0.00	0.13	9	0	1	6	0	1
2MPENTENE2	1.2	0.0	0.1	0.33	0.00	0.13	13	0	1	8	0	1
MCYP43M2C5	4.1	0.3	0.9	1.13	1.05	1.16	46	5	10	28	3	7
24MPENTANE	7.7	0.6	2.0	2.12	2.09	2.59	88	10	24	55	6	15
BENZENE	7.2	0.3	0.9	1.99	1.05	1.16	75	4	10	46	3	6
CYMEXANE	0.8	0.1	0.1	0.22	0.35	0.13	9	2	1	6	1	1
2MC6+23MC5	16.1	1.2	3.9	4.44	4.18	5.05	183	20	46	114	12	29
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.7	0.3	0.9	1.02	1.05	1.16	42	5	11	26	3	7
224MPENTAN	32.2	3.4	9.3	8.88	11.85	12.03	366	56	110	227	35	69
NHEPTANE	3.1	0.1	0.4	0.85	0.35	0.52	35	2	5	22	1	3
MCYHEXANE	1.9	0.1	0.3	0.52	0.35	0.39	21	2	3	13	1	2
25MHEXANE	4.4	0.0	0.0	1.21	0.00	0.00	50	0	0	31	0	0
24MC6+233M	2.4	0.4	1.4	0.66	1.39	1.81	27	7	17	17	4	10
234MC5	8.5	0.6	1.9	2.34	2.09	2.46	97	10	23	60	6	14
TOLUENE	14.9	0.7	2.1	4.11	2.44	2.72	156	11	23	97	7	14
23MC6+4MC7	3.2	0.2	0.6	0.88	0.70	0.78	36	3	7	23	2	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60202
DATE RUN: 08 04 78
CAR: 1976 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	2.6	0.1	0.5	0.72	0.35	0.65	30	2	6	18	1	4
3MHEPTANE	2.6	0.1	0.5	0.72	0.35	0.65	30	2	6	18	1	4
255MC6	3.5	0.2	0.7	0.96	0.70	0.91	40	3	8	25	2	5
N OCTANE	1.1	0.0	0.1	0.30	0.00	0.13	13	0	1	8	0	1
223MC6	0.6	0.1	0.2	0.17	0.35	0.26	7	2	2	4	1	1
ETCYHEXANE	0.7	0.0	0.2	0.19	0.00	0.26	8	0	2	5	0	1
ET BENZENE	2.6	0.0	0.1	0.72	0.00	0.13	27	0	1	17	0	1
M+PXYLENE	9.5	0.1	0.5	2.62	0.35	0.65	100	2	6	62	1	3
244MC8	1.4	0.1	0.2	0.39	0.35	0.26	16	2	2	10	1	1
O XYLENE	4.0	0.1	0.3	1.10	0.35	0.39	42	2	3	26	1	2
N NONANE	1.5	0.1	0.3	0.41	0.35	0.39	17	2	4	11	1	2
IPRBENZENE	1.1	0.0	0.2	0.30	0.00	0.26	12	0	2	7	0	1
NPRBENZENE	0.7	0.0	0.0	0.19	0.00	0.00	7	0	0	5	0	0
1M3ETBENZ	3.9	0.1	0.1	1.08	0.35	0.13	41	2	1	26	1	1
135MEBENZ	1.5	0.1	0.1	0.41	0.35	0.13	16	2	1	10	1	1
1M2ETBENZ	1.8	0.1	0.4	0.50	0.35	0.52	19	2	4	12	1	3
124MBENZ	4.8	0.2	0.3	1.32	0.70	0.39	51	3	3	32	2	2
SBUBENZENE	0.5	0.0	0.1	0.14	0.00	0.13	5	0	1	3	0	1
N DECANE	0.2	0.0	0.0	0.06	0.00	0.00	2	0	0	1	0	0
123MBENZ	1.2	0.1	0.1	0.33	0.35	0.13	13	2	1	8	1	1
INDANE	0.8	0.0	0.0	0.22	0.00	0.00	8	0	0	5	0	0
13EBENZENE	0.3	0.0	0.0	0.08	0.00	0.00	3	0	0	2	0	0
NBUBENZENE	1.1	0.0	0.1	0.30	0.00	0.13	12	0	1	7	0	1
1M3PRBENZ	1.4	0.0	0.1	0.39	0.00	0.13	15	0	1	9	0	1
UNKNOWNS	24.0	1.5	2.2	6.62	5.23	2.85	256	23	25	159	14	15

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60401
DATE RUN: 07 25 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 40

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	177.0	21.0	48.3
GC PPMC	153.3	18.7	37.8

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	19.7	4.5	1.3	12.85	24.06	3.44	289	84	20	180	52	13
SATURATES	65.2	11.9	30.4	42.53	63.64	80.42	857	198	423	533	123	263
OLEFINS	30.4	1.3	1.8	19.83	6.95	4.76	390	21	24	243	13	15
ACETYLENE	10.2	0.0	0.0	6.65	0.00	0.00	122	0	0	76	0	0
NAPTHENES	3.1	0.1	0.9	2.02	0.53	2.38	40	2	12	25	1	8
AROMATICS	18.2	0.6	1.7	11.87	3.21	4.50	220	9	22	136	6	13
BENZENE	3.5	0.2	0.4	2.28	1.07	1.06	42	3	5	26	2	3
TOLUENE	5.3	0.4	1.1	3.46	2.14	2.91	64	6	14	40	4	9
C8+AROM	9.4	0.0	0.2	6.13	0.00	0.53	115	0	3	72	0	2
UNKNOWN	6.5	0.3	1.7	0.00	0.00	0.00	80	5	22	50	3	14
INDIVIDUAL COMPONENTS												
METHANE	19.7	4.5	1.3	12.85	24.06	3.44	289	84	20	180	52	13
ETHYLENE	14.4	1.2	0.6	9.39	6.42	1.59	185	19	8	115	12	5
ETHANE	2.6	0.9	0.2	1.70	4.81	0.53	36	16	3	22	10	2
ACETYLENE	10.2	0.0	0.0	6.65	0.00	0.00	122	0	0	76	0	0
C3 + C3=	5.4	0.1	0.4	3.52	0.53	1.06	69	2	5	43	1	3
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.0	0.4	1.1	0.65	2.14	2.91	13	7	15	8	4	10
B1 + IB	3.1	0.0	0.2	2.02	0.00	0.53	40	0	3	25	0	2
NC4 +B=1=3	7.2	2.9	6.8	4.70	15.51	17.99	96	49	96	60	30	60
TBUTENE-2	0.8	0.0	0.2	0.52	0.00	0.53	10	0	3	6	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.7	0.0	0.1	0.46	0.00	0.26	9	0	1	6	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.0	0.13	0.00	0.00	3	0	0	2	0	0
ISOPENTANE	8.8	2.1	5.5	5.74	11.23	14.55	116	35	77	72	22	48
PENTENE-1	0.2	0.0	0.0	0.13	0.00	0.00	3	0	0	2	0	0
2MBUT-1	0.4	0.0	0.0	0.26	0.00	0.00	5	0	0	3	0	0
NPENTANE	1.5	0.4	0.8	0.98	2.14	2.12	20	7	11	12	4	7
2NB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60401
DATE RUN: 07 25 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.8	0.0	0.1	0.52	0.00	0.26	10	0	1	6	0	1
CISPENT-2	0.4	0.0	0.0	0.26	0.00	0.00	5	0	0	3	0	0
2MBUT-2	1.4	0.0	0.0	0.91	0.00	0.00	18	0	0	11	0	0
22MBUTANE	0.1	0.2	0.1	0.07	1.07	0.26	1	3	1	1	2	1
CYPENTENE	0.2	0.0	0.0	0.13	0.00	0.00	2	0	0	2	0	0
3MPENTENE	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.2	0.0	0.2	0.13	0.00	0.53	3	0	3	2	0	2
23MBUTANE	1.5	0.2	1.0	0.98	1.07	2.65	20	3	14	12	2	9
2MPENTANE	5.3	0.5	1.7	3.46	2.67	4.50	70	8	24	43	5	15
3MPENTANE	2.4	0.3	0.9	1.57	1.60	2.38	32	5	13	20	3	8
HEXENE-1	0.6	0.0	0.1	0.39	0.00	0.26	8	0	1	5	0	1
N HEXANE	0.8	0.1	0.3	0.52	0.53	0.79	11	2	4	7	1	3
TC6=3,=2	1.2	0.0	0.1	0.78	0.00	0.26	15	0	1	10	0	1
CC6=3	0.2	0.0	0.0	0.13	0.00	0.00	3	0	0	2	0	0
2MPENTENE2	0.3	0.0	0.0	0.20	0.00	0.00	4	0	0	2	0	0
MCYP4,3M2C5	1.7	0.1	0.4	1.11	0.53	1.06	22	2	5	14	1	3
24MPENTANE	3.1	0.3	1.0	2.02	1.60	2.65	41	5	14	25	3	9
BENZENE	3.5	0.2	0.4	2.28	1.07	1.06	42	3	5	26	2	3
CYHEXANE	0.4	0.0	0.1	0.26	0.00	0.26	5	0	1	3	0	1
2MC6+23MC5	6.0	0.6	2.0	3.91	3.21	5.29	79	10	28	49	6	17
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.4	0.1	0.5	0.91	0.53	1.32	18	2	7	11	1	4
224MPENTAN	12.3	2.0	5.4	8.02	10.70	14.29	161	33	75	100	21	46
MHEPTANE	0.9	0.0	0.3	0.59	0.00	0.79	12	0	4	7	0	3
MCYHEXANE	0.6	0.0	0.2	0.39	0.00	0.53	8	0	3	5	0	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	2.3	0.2	0.7	1.50	1.07	1.85	30	3	10	19	2	6
234MC5	2.7	0.3	0.9	1.76	1.60	2.38	35	5	12	22	3	8
TOLUENE	5.3	0.4	1.1	3.46	2.14	2.91	64	6	14	40	4	9
23MC6+4MC7	1.0	0.1	0.3	0.65	0.53	0.79	13	2	4	8	1	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60401
DATE RUN: 07 25 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	0.9	0.1	0.2	0.59	0.53	0.53	12	2	3	7	1	2
3MHEPTANE	0.8	0.1	0.2	0.52	0.53	0.53	10	2	3	7	1	2
255MC6	1.1	0.1	0.3	0.72	0.53	0.79	14	2	4	9	1	3
N OCTANE	0.3	0.0	0.1	0.20	0.00	0.26	4	0	1	2	0	1
223MC6	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.2	0.0	0.0	0.13	0.00	0.00	3	0	0	2	0	0
ET BENZENE	0.8	0.0	0.0	0.52	0.00	0.00	10	0	0	6	0	0
M+PXYLENE	2.7	0.0	0.1	1.76	0.00	0.26	33	0	1	20	0	1
2+4MC8	0.5	0.0	0.1	0.33	0.00	0.26	7	0	1	4	0	1
O XYLENE	1.1	0.0	0.1	0.72	0.00	0.26	13	0	1	8	0	1
N NONANE	0.5	0.0	0.0	0.33	0.00	0.00	7	0	0	4	0	0
IPRBENZENE	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
NPRBENZENE	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
1M3ETBENZ	1.1	0.0	0.0	0.72	0.00	0.00	13	0	0	8	0	0
135MEBENZ	0.4	0.0	0.0	0.26	0.00	0.00	5	0	0	3	0	0
1M2ETBENZ	0.6	0.0	0.0	0.39	0.00	0.00	7	0	0	5	0	0
124MBENZ	1.2	0.0	0.0	0.78	0.00	0.00	15	0	0	9	0	0
SBUBENZENE	0.2	0.0	0.0	0.13	0.00	0.00	2	0	0	2	0	0
N DECANE	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.3	0.0	0.0	0.20	0.00	0.00	4	0	0	2	0	0
INDANE	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.3	0.0	0.0	0.20	0.00	0.00	4	0	0	2	0	0
1M3PRBENZ	0.4	0.0	0.0	0.26	0.00	0.00	5	0	0	3	0	0
UNKNOWNS	0.5	0.3	1.7	4.24	1.60	4.50	80	5	22	50	3	14

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60402
DATE RUN: 08 08 78
CAR: 1978 CHEVROLET ST #-CALIF VIN: 1L35L8S223673 DRIVEN: FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 40

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	191.7	21.0	51.7
GC PPMC	181.6	17.4	52.9

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
MAJOR COMPONENTS												
METHANE	23.6	3.4	5.8	13.00	19.54	10.96	317	65	68	197	41	42
SATURATES	71.3	9.1	32.8	39.26	52.30	62.00	857	157	346	532	98	215
OLEFINS	33.9	1.5	3.9	18.67	8.62	7.37	398	25	40	247	16	25
ACETYLENE	13.4	0.0	0.0	7.38	0.00	0.00	146	0	0	91	0	0
NAPTHENES	3.4	0.4	0.9	1.87	2.30	1.70	40	7	9	25	4	6
AROMATICS	29.4	0.6	2.8	16.19	3.45	5.29	324	9	27	201	6	17
BENZENE	4.4	0.4	0.6	2.42	2.30	1.13	48	6	6	30	4	4
TOLUENE	4.8	0.2	0.9	2.64	1.15	1.70	53	3	9	33	2	5
C8+AROM	20.2	0.0	1.3	11.12	0.00	2.46	226	0	13	141	0	8
UNKNOWN	6.6	2.4	6.7	0.00	0.00	0.00	74	39	66	46	24	41
INDIVIDUAL COMPONENTS												
METHANE	23.6	3.4	5.8	13.00	19.54	10.96	317	65	68	197	41	42
ETHYLENE	15.6	0.7	2.7	8.59	4.02	5.10	183	12	28	114	7	17
ETHANE	2.8	0.5	1.2	1.54	2.87	2.27	35	9	13	22	6	8
ACETYLENE	13.4	0.0	0.0	7.38	0.00	0.00	146	0	0	91	0	0
C3 + C3=	5.4	0.2	0.4	2.97	1.15	0.76	63	3	4	39	2	3
C=C=C	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.2	0.3	1.1	0.66	1.72	2.08	15	5	12	9	3	7
B1 + I8	2.3	0.0	0.0	1.27	0.00	0.00	27	0	0	17	0	0
NC4 +B=1=3	7.9	1.7	7.0	4.35	9.77	13.23	96	30	75	60	18	46
TBUTENE-2	1.4	0.1	0.0	0.77	0.57	0.00	16	2	0	10	1	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.5	0.1	0.0	0.28	0.57	0.00	6	2	0	4	1	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.0	0.11	0.00	0.00	2	0	0	1	0	0
ISOPENTANE	9.1	1.3	5.5	5.01	7.47	10.40	110	23	58	68	14	36
PENTENE-1	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.6	0.0	0.0	0.33	0.00	0.00	7	0	0	4	0	0
NPENTANE	1.6	0.3	1.0	0.88	1.72	1.89	19	5	11	12	3	7
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60402
DATE RUN: 08 08 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L85223673 DRIVER: FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.2	0.0	0.2	0.66	0.00	0.38	14	0	2	9	0	1
CISPLNT-2	0.6	0.0	0.0	0.33	0.00	0.00	7	0	0	4	0	0
2MBUT-2	4.0	0.1	0.3	2.20	0.57	0.57	47	2	3	29	1	2
22MBUTANE	0.0	0.1	0.0	0.00	0.57	0.00	0	2	0	0	1	0
CYPENTENE	0.0	0.1	0.0	0.00	0.57	0.00	0	2	0	0	1	0
3MPENTENE	0.0	0.2	0.0	0.00	1.15	0.00	0	3	0	0	2	0
CYPENTANE	0.2	0.0	0.1	0.11	0.00	0.19	2	0	1	1	0	1
23MBUTANE	2.6	0.4	0.8	1.54	2.30	1.51	34	7	8	21	4	5
2MPENTANE	4.6	0.4	2.1	2.53	2.30	3.97	55	7	22	34	4	14
3MPENTANE	3.1	0.5	1.1	1.71	2.87	2.08	37	9	12	23	5	7
HEXENE-1	0.2	0.0	0.1	0.11	0.00	0.19	2	0	1	1	0	1
N HEXANE	1.2	0.3	0.4	0.66	1.72	0.76	14	5	4	9	3	3
TC6=3,=2	1.4	0.0	0.2	0.77	0.00	0.38	16	0	2	10	0	1
CC6=3	0.3	0.0	0.0	0.17	0.00	0.00	4	0	0	2	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	2.3	0.3	0.6	1.27	1.72	1.13	27	5	6	17	3	4
24MPENTANE	3.3	0.3	1.1	1.82	1.72	2.08	40	5	12	25	3	7
BENZENE	4.4	0.4	0.6	2.42	2.30	1.13	48	6	6	30	4	4
CYHEXANE	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
2MC6+23MC5	5.5	0.5	2.2	3.63	2.87	4.16	79	9	23	49	5	14
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.6	0.2	0.6	0.88	1.15	1.13	19	3	6	12	2	4
224MPENTAN	13.0	1.3	5.4	7.16	7.47	10.21	155	22	57	97	14	35
MHEPTANE	0.8	0.2	0.3	0.44	1.15	0.57	10	3	3	6	2	2
MCYHEXANE	0.7	0.1	0.2	0.39	0.57	0.38	8	2	2	5	1	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	2.3	0.2	0.7	1.27	1.15	1.32	27	3	7	17	2	5
234MC5	3.8	0.2	1.0	2.09	1.15	1.89	45	3	10	28	2	7
TOLUENE	4.8	0.2	0.9	2.64	1.15	1.70	53	3	9	33	2	5
23MC6+4MC7	1.1	0.1	0.3	0.61	0.57	0.57	13	2	3	8	1	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60402
DATE RUN: 06 08 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: FUEL: WINTER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
34MHEXANE		0.9	0.1	0.2		0.50	0.57	0.38		11	2	2		7	1	1
3MHEPTANE		0.9	0.1	0.2		0.50	0.57	0.38		11	2	2		7	1	1
255MC6		2.1	0.1	0.3		1.16	0.57	0.57		25	2	3		16	1	2
N OCTANE		0.3	0.0	0.1		0.17	0.00	0.19		4	0	1		2	0	1
223MC6		0.1	0.0	0.0		0.06	0.00	0.00		1	0	0		1	0	0
ETCYHEXANE		0.1	0.0	0.0		0.06	0.00	0.00		1	0	0		1	0	0
ET BENZENE		1.1	0.0	0.1		0.61	0.00	0.19		12	0	1		8	0	1
M+PXYLENE		4.5	0.0	0.2		2.48	0.00	0.38		50	0	2		31	0	1
2+4MC8		0.1	0.0	0.1		0.06	0.00	0.19		1	0	1		1	0	1
O XYLENE		3.1	0.0	0.2		1.71	0.00	0.38		34	0	2		21	0	1
N NONANE		0.1	0.0	0.1		0.06	0.00	0.19		1	0	1		1	0	1
IPRBENZENE		0.3	0.0	0.1		0.17	0.00	0.19		3	0	1		2	0	1
NPRBENZENE		0.1	0.0	0.0		0.06	0.00	0.00		1	0	0		1	0	0
1M3ETBENZ		2.3	0.0	0.0		1.27	0.00	0.00		26	0	0		16	0	0
135MEBENZ		0.5	0.0	0.1		0.28	0.00	0.19		6	0	1		3	0	1
1M2ETBENZ		0.6	0.0	0.2		0.33	0.00	0.38		7	0	2		4	0	1
124MBENZ		6.2	0.0	0.2		3.41	0.00	0.38		69	0	2		43	0	1
SBUBENZENE		0.2	0.0	0.2		0.11	0.00	0.38		2	0	2		1	0	1
N DECANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
123MBENZ		0.4	0.0	0.0		0.22	0.00	0.00		4	0	0		3	0	0
INDANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
13EBENZENE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
NBUBENZENE		0.4	0.0	0.0		0.22	0.00	0.00		4	0	0		3	0	0
1M3PRBENZ		0.5	0.0	0.0		0.28	0.00	0.00		6	0	0		3	0	0
UNKNOWNS		6.6	2.4	6.7		3.63	13.79	12.67		74	39	66		46	24	41

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60601
DATE RUN: 06 16 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L85223673 DRIVER: SWARTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 60

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	134.7	15.0	29.8
GC PPMC	113.1	14.2	7.0

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	13.7	4.4	2.9	12.11	30.99	41.43	199	47	135	124	29	84
SATURATES	44.2	6.9	2.2	39.08	48.59	31.43	574	65	92	357	41	57
OLEFINS	19.8	0.9	0.2	17.51	6.34	2.86	251	8	8	156	5	5
ACETYLENE	5.3	0.0	0.0	4.69	0.00	0.00	62	0	0	39	0	0
NAPTHENES	2.2	0.2	0.1	1.95	1.41	1.43	28	2	4	17	1	3
AROMATICS	24.1	1.3	0.5	21.31	9.15	7.14	287	11	19	178	7	12
BENZENE	3.4	0.1	0.1	3.01	0.70	1.43	40	1	4	25	1	2
TOLUENE	7.3	0.4	0.1	6.45	2.82	1.43	87	3	4	54	2	2
C8+AROM	13.4	0.8	0.3	11.85	5.63	4.29	162	7	12	101	4	7
UNKNOWN	3.8	0.5	1.1	0.00	0.00	0.00	46	4	43	29	3	27
INDIVIDUAL COMPONENTS												
METHANE	13.7	4.4	2.9	12.11	30.99	41.43	199	47	135	124	29	84
ETHYLENE	9.9	0.6	0.0	8.75	4.23	0.00	126	6	0	78	3	0
ETHANE	1.9	0.7	0.0	1.68	4.93	0.00	26	7	0	16	4	0
ACETYLENE	5.3	0.0	0.0	4.69	0.00	0.00	62	0	0	39	0	0
C3 + C3=	3.9	0.2	0.0	3.45	1.41	0.00	49	2	0	31	1	0
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.5	0.0	0.2	0.44	0.00	2.86	7	0	8	4	0	5
B1 + 1B	2.2	0.0	0.0	1.95	0.00	0.00	28	0	0	17	0	0
NC4 +B=1=3	4.1	1.5	0.0	3.63	10.56	0.00	54	14	0	33	9	0
TBUTENE-2	0.4	0.0	0.0	0.35	0.00	0.00	5	0	0	3	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.3	0.0	0.0	0.27	0.00	0.00	4	0	0	2	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	4.3	1.0	0.3	3.80	7.04	4.29	56	10	13	35	6	8
PENTENE-1	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.2	0.0	0.0	0.18	0.00	0.00	3	0	0	2	0	0
NPENTANE	0.8	0.2	0.2	0.71	1.41	2.86	10	2	8	6	1	5
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60601
DATE RUN: 06 16 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.4	0.0	0.0	0.35	0.00	0.00	5	0	0	3	0	0
CISPENT-2	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.9	0.0	0.2	0.80	0.00	2.86	11	0	8	7	0	5
22MBUTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTENE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.4	0.1	0.0	0.35	0.70	0.00	5	1	0	3	1	0
23MBUTANE	1.4	0.3	0.3	1.24	2.11	4.29	18	3	13	11	2	8
2MPENTANE	2.5	0.7	0.6	2.21	4.93	8.57	32	7	25	20	4	16
3MPENTANE	1.3	0.7	0.1	1.15	4.93	1.43	17	7	4	10	4	3
HEXENE-1	0.0	0.1	0.0	0.00	0.70	0.00	0	1	0	0	1	0
N HEXANE	0.6	0.1	0.2	0.53	0.70	2.86	8	1	8	5	1	5
TC6=3,=2	0.8	0.0	0.0	0.71	0.00	0.00	10	0	0	6	0	0
CC6=3	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.3	0.0	0.0	0.27	0.00	0.00	4	0	0	2	0	0
MCYP43M2C5	1.1	0.1	0.1	0.97	0.70	1.43	14	1	4	9	1	3
24MPENTANE	2.2	0.1	0.0	1.95	0.70	0.00	28	1	0	18	1	0
BENZENE	3.4	0.1	0.1	3.01	0.70	1.43	40	1	4	25	1	2
CYHEXANE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
2MC6+23MC5	4.7	0.3	0.1	4.16	2.11	1.43	61	3	4	38	2	3
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.2	0.1	0.0	1.06	0.70	0.00	16	1	0	10	1	0
224MPENTAN	9.7	0.9	0.2	8.58	6.34	2.86	125	8	8	78	5	5
MHEPTANE	0.8	0.1	0.0	0.71	0.70	0.00	10	1	0	6	1	0
MCYHEXANE	0.5	0.0	0.0	0.44	0.00	0.00	6	0	0	4	0	0
25MHEXANE	0.8	0.0	0.0	0.71	0.00	0.00	10	0	0	6	0	0
24MC6+233M	1.0	0.1	0.0	0.88	0.70	0.00	13	1	0	8	1	0
234MC5	2.1	0.1	0.0	1.86	0.70	0.00	27	1	0	17	1	0
TOLUENE	7.3	0.4	0.1	6.45	2.82	1.43	87	3	4	54	2	2
23MC6+4MC7	0.9	0.0	0.0	0.80	0.00	0.00	12	0	0	7	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60601
DATE RUN: 06 16 78
CAR: 1978 CHEVROLET ST #-CALIF VIN: 1L35L85223673 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	0.8	0.0	0.0	0.71	0.00	0.00	10	0	0	6	0	0
3MHEPTANE	0.8	0.0	0.0	0.71	0.00	0.00	10	0	0	6	0	0
255MC6	0.7	0.0	0.0	0.62	0.00	0.00	9	0	0	6	0	0
N OCTANE	0.3	0.0	0.0	0.27	0.00	0.00	4	0	0	2	0	0
223MC6	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
ET BENZENE	1.2	0.0	0.0	1.06	0.00	0.00	14	0	0	9	0	0
M+PXYLENE	4.8	0.2	0.2	4.24	1.41	2.86	58	2	8	36	1	5
2+4MC8	0.4	0.0	0.0	0.35	0.00	0.00	5	0	0	3	0	0
O XYLENE	1.7	0.1	0.0	1.50	0.70	0.00	20	1	0	13	1	0
N NONANE	0.3	0.0	0.0	0.27	0.00	0.00	4	0	0	2	0	0
IPRBENZENE	0.2	0.0	0.0	0.18	0.00	0.00	2	0	0	2	0	0
NPRBENZENE	0.2	0.0	0.0	0.18	0.00	0.00	2	0	0	2	0	0
1M3ETBENZ	1.5	0.0	0.0	1.33	0.00	0.00	18	0	0	11	0	0
135MEBENZ	0.6	0.0	0.0	0.53	0.00	0.00	7	0	0	5	0	0
1M2ETBENZ	0.3	0.0	0.0	0.27	0.00	0.00	4	0	0	2	0	0
124MBENZ	2.0	0.3	0.1	1.77	2.11	1.43	24	3	4	15	2	2
SBUBENZENE	0.0	0.1	0.0	0.00	0.70	0.00	0	1	0	0	1	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.4	0.1	0.0	0.35	0.70	0.00	5	1	0	3	1	0
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.2	0.0	0.0	0.18	0.00	0.00	2	0	0	2	0	0
1M3PRBENZ	0.3	0.0	0.0	0.27	0.00	0.00	4	0	0	2	0	0
UNKNOWNS	3.8	0.5	1.1	3.36	3.52	15.71	46	4	43	29	3	27

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60602
DATE RUN: 07 24 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L85223673 DRIVER: SWARTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 60

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	92.9	21.7	30.6
GC PPMC	79.0	18.5	31.8

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	6.4	2.5	4.9	8.10	13.51	15.41	95	51	57	59	32	35
SATURATES	31.5	13.0	21.0	39.87	70.27	66.04	419	239	218	260	149	135
OLEFINS	12.2	0.6	2.1	15.44	3.24	6.60	158	11	21	98	7	13
ACETYLENE	3.2	0.0	0.0	4.05	0.00	0.00	39	0	0	24	0	0
NAPTHENES	1.4	0.7	0.7	1.77	3.78	2.20	18	13	7	11	8	4
AROMATICS	18.0	1.0	2.1	22.78	5.41	6.60	220	17	20	136	10	12
BENZENE	3.0	0.6	0.5	3.80	3.24	1.57	36	10	5	22	6	3
TOLUENE	5.2	0.4	0.8	6.58	2.16	2.52	63	7	8	39	4	5
C8+AROM	9.8	0.0	0.8	12.41	0.00	2.52	121	0	8	76	0	5
UNKNOWN	6.3	0.7	1.0	0.00	0.00	0.00	78	12	10	49	7	6
INDIVIDUAL COMPONENTS												
METHANE	6.4	2.5	4.9	8.10	13.51	15.41	95	51	57	59	32	35
ETHYLENE	3.6	0.2	1.5	4.56	1.08	4.72	47	4	15	29	2	9
ETHANE	0.7	0.3	1.0	0.89	1.62	3.14	10	6	11	6	4	7
ACETYLENE	3.2	0.0	0.0	4.05	0.00	0.00	39	0	0	24	0	0
C3 + C3=	4.5	0.3	0.4	5.70	1.62	1.26	58	5	4	36	3	3
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.7	0.2	0.6	0.89	1.08	1.89	9	4	6	6	2	4
B1 + IB	1.0	0.0	0.0	1.27	0.00	0.00	13	0	0	8	0	0
NC4 +B=1=3	2.8	2.1	4.3	3.54	11.35	13.52	38	39	45	23	24	28
TBUTENE-2	0.4	0.0	0.0	0.51	0.00	0.00	5	0	0	3	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.5	0.0	0.0	0.63	0.00	0.00	6	0	0	4	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	2.4	1.2	2.8	3.04	6.49	8.81	32	22	29	20	14	18
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	0.6	0.3	0.5	0.76	1.62	1.57	8	6	5	5	3	3
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60602
DATE RUN: 07 24 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L36L85223673 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
TPENT=2		0.5	0.0	0.1		0.63	0.00	0.31		6	0	1		4	0	1
CISPENT-2		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
2MBUT-2		0.8	0.0	0.1		1.01	0.00	0.31		10	0	1		6	0	1
22MBUTANE		0.0	1.8	0.1		0.00	9.73	0.31		0	33	1		0	21	1
CYPENTENE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
3MPENTENE		0.0	0.1	0.0		0.00	0.54	0.00		0	2	0		0	1	0
CYPENTANE		0.0	0.3	0.0		0.00	1.62	0.00		0	5	0		0	3	0
23MBUTANE		1.4	0.2	0.5		1.77	1.08	1.57		14	4	5		12	2	3
2MPENTANE		2.1	1.0	1.1		2.66	5.41	3.46		28	18	11		17	11	7
3MPENTANE		0.9	0.8	0.7		1.14	4.32	2.20		12	15	7		7	9	5
HEXENE-1		0.8	0.0	0.0		1.01	0.00	0.00		10	0	0		6	0	0
N HEXANE		0.0	0.5	0.4		0.00	2.70	1.26		0	9	4		0	6	3
TC6=3,=2		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
CC6=3		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
2MPENTENE2		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
MCYP43M2C5		1.0	0.3	0.4		1.27	1.62	1.26		13	5	4		8	3	3
24MPENTANE		1.7	0.4	0.7		2.15	2.16	2.20		23	7	7		14	5	4
BENZENE		3.0	0.6	0.5		3.80	3.24	1.57		36	10	5		22	6	3
CYHEXANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
2MC6+23MC5		3.1	0.7	1.4		3.92	3.78	4.40		41	13	14		26	8	9
24MHEXANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
3MHEXANE		1.3	0.3	0.6		1.65	1.62	1.89		17	6	6		11	3	4
224MPENTAN		6.2	2.0	3.6		7.85	10.81	11.32		82	37	37		51	23	23
NHEPTANE		1.1	0.5	0.5		1.39	2.70	1.57		15	9	5		9	6	3
MCYHEXANE		0.3	0.1	0.2		0.38	0.54	0.63		4	2	2		2	1	1
25MHEXANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
24MC6+233M		1.1	0.1	0.5		1.39	0.54	1.57		15	2	5		9	1	3
234MC5		2.1	0.2	0.6		2.66	1.08	1.89		28	4	6		17	2	4
TOLUENE		5.2	0.4	0.8		6.58	2.16	2.52		63	7	8		39	4	5
23MC6+4MC7		0.7	0.1	0.2		0.89	0.54	0.63		9	2	2		6	1	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60602
DATE RUN: 07 24 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35LAS223673 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	0.6	0.1	0.2	0.76	0.54	0.63	8	2	2	5	1	1
3MHEPTANE	0.6	0.1	0.2	0.76	0.54	0.63	8	2	2	5	1	1
255MC6	0.6	0.1	0.2	0.76	0.54	0.63	8	2	2	5	1	1
N OCTANE	0.4	0.0	0.1	0.51	0.00	0.31	5	0	1	3	0	1
223MC6	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ETCYHEXANE	0.1	0.0	0.1	0.13	0.00	0.31	1	0	1	1	0	1
ET BENZENE	0.8	0.0	0.1	1.01	0.00	0.31	10	0	1	6	0	1
M+PXYLENE	3.4	0.0	0.2	4.30	0.00	0.63	42	0	2	26	0	1
244MC8	0.2	0.0	0.1	0.25	0.00	0.31	3	0	1	2	0	1
O XYLENE	1.5	0.0	0.1	1.90	0.00	0.31	18	0	1	11	0	1
N NONANE	0.2	0.0	0.1	0.25	0.00	0.31	3	0	1	2	0	1
IPRBENZENE	0.1	0.0	0.1	0.13	0.00	0.31	1	0	1	1	0	1
NPRBENZENE	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
1M3ETBENZ	0.9	0.0	0.0	1.14	0.00	0.00	11	0	0	7	0	0
135MEBENZ	0.4	0.0	0.0	0.51	0.00	0.00	5	0	0	3	0	0
1M2ETBENZ	0.2	0.0	0.1	0.25	0.00	0.31	2	0	1	2	0	1
124MBENZ	1.2	0.0	0.1	1.52	0.00	0.31	15	0	1	9	0	1
SBUBENZENE	0.2	0.0	0.1	0.25	0.00	0.31	2	0	1	2	0	1
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.3	0.0	0.0	0.36	0.00	0.00	4	0	0	2	0	0
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.3	0.0	0.0	0.38	0.00	0.00	4	0	0	2	0	0
1M3PRBENZ	0.4	0.0	0.0	0.51	0.00	0.00	5	0	0	3	0	0
UNKNOWNS	6.3	0.7	1.0	7.97	3.78	3.14	78	12	10	49	7	6

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60701
DATE RUN: 06 19 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: WAND FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 70

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	110.4	14.2	34.8
GC PPMC	106.6	10.2	27.4

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
MAJOR COMPONENTS												
METHANE	10.8	3.4	5.7	10.13	33.33	20.80	143	74	87	89	46	54
SATURATES	37.7	4.7	16.0	35.37	46.08	58.39	447	92	218	278	57	135
OLEFINS	14.4	0.6	2.8	13.51	5.88	10.22	167	11	37	104	7	23
ACETYLENE	5.0	0.0	0.0	4.69	0.00	0.00	54	0	0	33	0	0
NAPTHENES	1.6	0.1	0.5	1.50	0.98	1.62	19	2	7	12	1	4
AROMATICS	31.5	0.9	2.3	29.55	8.82	8.39	342	16	29	213	10	18
BENZENE	3.8	0.1	0.4	3.56	0.98	1.46	41	2	5	25	1	3
TOLUENE	10.0	0.4	1.1	9.38	3.92	4.01	109	7	14	68	4	9
C8+AROM	17.7	0.4	0.8	16.60	3.92	2.92	196	7	10	122	5	6
UNKNOWN	5.6	0.5	0.1	0.00	0.00	0.00	62	9	1	39	6	1
INDIVIDUAL COMPONENTS												
METHANE	10.8	3.4	5.7	10.13	33.33	20.80	143	74	87	89	46	54
ETHYLENE	7.7	0.5	2.0	7.22	4.90	7.30	89	10	27	55	6	17
ETHANE	1.6	0.5	1.0	1.50	4.90	3.65	20	10	14	12	6	9
ACETYLENE	5.0	0.0	0.0	4.69	0.00	0.00	54	0	0	33	0	0
C3 + C3=	3.2	0.1	0.2	3.00	0.98	0.73	37	2	3	23	1	2
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.4	0.1	0.4	0.38	0.98	1.46	5	2	6	3	1	3
B1 + IB	1.7	0.0	0.1	1.59	0.00	0.36	20	0	1	12	0	1
NC4 +B=1=3	3.5	1.0	3.2	3.28	9.80	11.68	42	20	44	26	12	27
TBUTENE-2	0.3	0.0	0.0	0.28	0.00	0.00	3	0	0	2	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	3.3	0.7	2.4	3.10	6.86	8.76	39	14	33	24	9	20
PLNTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
NPENTANE	0.6	0.2	0.4	0.56	1.96	1.46	7	4	5	4	2	3
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60701
DATE RUN: 06 19 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG. 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.2	0.0	0.0	0.19	0.00	0.00	2	0	0	1	0	0
CISPENT-2	0.1	0.0	0.1	0.09	0.00	0.36	1	0	1	1	0	1
2MBUT-2	0.5	0.0	0.4	0.47	0.00	1.46	6	0	5	4	0	3
22MBUTANE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
CYPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
23MBUTANE	0.9	0.1	0.3	0.84	0.98	1.09	11	2	4	7	1	3
2MPENTANE	1.8	0.4	0.9	1.69	3.92	3.28	21	8	12	13	5	8
3MPENTANE	1.0	0.1	0.4	0.94	0.98	1.46	12	2	5	7	1	3
HEXENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
N HEXANE	0.7	0.1	0.2	0.66	0.98	0.73	8	2	3	5	1	2
TC6=3,=2	0.3	0.0	0.0	0.28	0.00	0.00	3	0	0	2	0	0
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
MCYP43M2C5	0.8	0.1	0.3	0.75	0.98	1.09	9	2	4	6	1	2
24MPENTANE	1.8	0.1	0.5	1.69	0.98	1.82	21	2	7	13	1	4
BENZENE	3.8	0.1	0.4	3.56	0.98	1.46	41	2	5	25	1	3
CYHEXANE	0.2	0.0	0.1	0.19	0.00	0.36	2	0	1	1	0	1
2MC6+23MC5	3.9	0.2	1.1	3.66	1.96	4.01	46	4	15	29	2	9
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.3	0.1	0.3	1.22	0.98	1.09	15	2	4	10	1	3
224MPENTAN	8.0	0.8	2.8	7.50	7.84	10.22	94	16	38	59	10	24
NHEPTANE	1.0	0.0	0.2	0.94	0.00	0.73	12	0	3	7	0	2
MCYHEXANE	0.3	0.0	0.1	0.28	0.00	0.36	3	0	1	2	0	1
25MHEXANE	0.6	0.0	0.0	0.56	0.00	0.00	7	0	0	4	0	0
24MC6+233M	0.9	0.1	0.4	0.84	0.98	1.46	11	2	5	7	1	3
234MC5	1.7	0.1	0.5	1.59	0.98	1.82	20	2	7	12	1	4
TOLUENE	10.0	0.4	1.1	9.38	3.92	4.01	109	7	14	68	4	9
23MC6+4MC7	0.9	0.0	0.2	0.84	0.00	0.73	11	0	3	7	0	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60701
DATE RUN: 06 19 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.0	0.0	0.2	0.94	0.00	0.73	12	0	3	7	0	2
3MHEPTANE	0.8	0.0	0.2	0.75	0.00	0.73	9	0	3	6	0	2
255MC6	0.7	0.0	0.2	0.66	0.00	0.73	8	0	3	5	0	2
N OCTANE	0.4	0.1	0.1	0.38	0.98	0.36	5	2	1	3	1	1
223MC6	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.2	0.0	0.0	0.19	0.00	0.00	2	0	0	1	0	0
ET BENZENE	1.5	0.0	0.1	1.41	0.00	0.36	16	0	1	10	0	1
M+PXYLENE	6.4	0.2	0.3	6.00	1.96	1.09	70	4	4	44	2	2
244MC8	0.5	0.0	0.1	0.47	0.00	0.36	6	0	1	4	0	1
O XYLENE	2.4	0.1	0.1	2.25	0.98	0.36	26	2	1	16	1	1
N NONANE	0.2	0.0	0.0	0.19	0.00	0.00	2	0	0	1	0	0
IPRBENZENE	0.2	0.0	0.1	0.19	0.00	0.36	2	0	1	1	0	1
NPRBENZENE	0.3	0.0	0.0	0.28	0.00	0.00	3	0	0	2	0	0
1M3ETBENZ	2.0	0.0	0.0	1.88	0.00	0.00	22	0	0	14	0	0
135MEBENZ	0.8	0.0	0.0	0.75	0.00	0.00	9	0	0	5	0	0
1M2ETBENZ	0.3	0.0	0.1	0.28	0.00	0.36	3	0	1	2	0	1
124MBENZ	2.6	0.1	0.1	2.44	0.98	0.36	29	2	1	18	1	1
SBUBENZENE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.2	0.0	0.0	0.19	0.00	0.00	2	0	0	1	0	0
INDANE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.3	0.0	0.0	0.28	0.00	0.00	3	0	0	2	0	0
1M3PRBENZ	0.5	0.0	0.0	0.47	0.00	0.00	6	0	0	3	0	0
UNKNOWNS	5.6	0.5	0.1	5.25	4.90	0.36	62	9	1	39	6	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60702
DATE RUN: 07 21 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 70

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	122.1	18.0	37.4
GC PPMC	112.1	16.3	35.2

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	12.3	5.0	6.5	10.97	30.67	18.47	162	65	77	101	40	48
SATURATES	43.1	9.0	21.2	38.45	55.21	60.23	508	105	224	316	65	139
OLEFINS	19.8	0.9	3.0	17.66	5.52	8.52	228	10	31	142	6	19
ACETYLENE	5.0	0.0	0.0	4.46	0.00	0.00	53	0	0	33	0	0
NAPTHENES	1.7	0.2	0.8	1.52	1.23	2.27	20	2	8	12	1	5
AROMATICS	25.6	0.9	2.8	22.84	5.52	7.95	277	10	27	172	6	17
BENZENE	3.7	0.2	0.5	3.30	1.23	1.42	40	2	5	25	1	3
TOLUENE	8.4	0.5	1.2	7.49	3.07	3.41	91	5	12	56	3	7
C8+AROM	13.5	0.2	1.1	12.04	1.23	3.13	148	2	11	92	1	7
UNKNOWN	4.6	0.3	0.9	0.00	0.00	0.00	51	3	9	31	2	6
INDIVIDUAL COMPONENTS												
METHANE	12.3	5.0	6.5	10.97	30.67	18.47	162	65	77	101	40	48
ETHYLENE	9.5	0.7	2.2	8.47	4.29	6.25	109	8	23	68	5	14
ETHANE	1.8	0.7	1.1	1.61	4.29	3.13	22	9	12	14	5	8
ACETYLENE	5.0	0.0	0.0	4.46	0.00	0.00	53	0	0	33	0	0
C3 + C3=	4.1	0.1	0.3	3.66	0.61	0.85	47	1	3	29	1	2
C=C=C	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.6	0.3	0.4	0.54	1.84	1.14	7	4	4	4	2	3
B1 + IB	2.5	0.0	0.2	2.23	0.00	0.57	29	0	2	18	0	1
NC4 +B=1-3	3.9	1.9	3.7	3.48	11.66	10.51	47	22	40	29	14	25
TBUTENE-2	0.5	0.1	0.1	0.45	0.61	0.28	6	1	1	4	1	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.4	0.0	0.1	0.36	0.00	0.28	5	0	1	3	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	3.5	1.3	3.1	3.12	7.98	8.81	41	15	33	26	9	20
PENTENE-1	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.2	0.0	0.0	0.18	0.00	0.00	2	0	0	1	0	0
NPENTANE	0.7	0.3	0.6	0.62	1.84	1.70	8	4	6	5	2	4
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60702
DATE RUN: 07 21 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L85223673 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.3	0.0	0.0	0.27	0.00	0.00	3	0	0	2	0	0
CISPENT-2	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.6	0.0	0.1	0.54	0.00	0.28	7	0	1	4	0	1
22MBUTANE	0.2	0.0	0.1	0.18	0.00	0.28	2	0	1	1	0	1
CYPENTENE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.1	0.1	0.2	0.09	0.61	0.57	1	1	2	1	1	1
23MBUTANE	0.9	0.3	0.5	0.80	1.64	1.42	11	3	5	7	2	3
2MPENTANE	2.8	0.4	1.1	2.50	2.45	3.13	33	5	12	21	3	7
3MPENTANE	1.3	0.2	0.5	1.16	1.23	1.42	15	2	5	10	1	3
HEXENE-1	0.4	0.0	0.0	0.36	0.00	0.00	5	0	0	3	0	0
N HEXANE	0.8	0.1	0.4	0.71	0.61	1.14	9	1	4	6	1	3
TC6=3,=2	0.5	0.0	0.0	0.45	0.00	0.00	6	0	0	4	0	0
CC6=3	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
MCYP43M2C5	0.9	0.1	0.3	0.80	0.61	0.85	10	1	3	6	1	2
24MPENTANE	2.0	0.2	0.7	1.78	1.23	1.99	23	2	7	15	1	5
BENZENE	3.7	0.2	0.5	3.30	1.23	1.42	40	2	5	25	1	3
CYHEXANE	0.2	0.0	0.1	0.18	0.00	0.28	2	0	1	1	0	1
2MC6+23MC5	4.3	0.5	1.5	3.84	3.07	4.26	51	6	16	31	4	10
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.4	0.2	0.5	1.25	1.23	1.42	16	2	5	10	1	3
224MPENTAN	8.9	1.5	4.0	7.94	9.20	11.36	104	17	42	65	11	26
NHEPTANE	1.3	0.2	0.4	1.16	1.23	1.14	15	2	4	9	1	3
MCYHEXANE	0.3	0.0	0.1	0.27	0.00	0.28	3	0	1	2	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.7	0.2	0.6	1.52	1.23	1.70	20	2	6	12	1	4
234MC5	1.9	0.2	0.7	1.69	1.23	1.99	22	2	7	14	1	5
TOLUENE	8.4	0.5	1.2	7.49	3.07	3.41	91	5	12	56	3	7
23MC6+4MC7	0.9	0.1	0.2	0.80	0.61	0.57	11	1	2	7	1	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60702
DATE RUN: 07 21 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L85223673 DRIVER: WAHD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.0	0.1	0.3	0.89	0.61	0.85	12	1	3	7	1	2
3MHEPTANE	0.9	0.1	0.3	0.80	0.61	0.85	11	1	3	7	1	2
255MC6	0.8	0.1	0.2	0.71	0.61	0.57	9	1	2	6	1	1
N OCTANE	0.5	0.1	0.1	0.45	0.61	0.28	6	1	1	4	1	1
223MC6	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.2	0.0	0.1	0.18	0.00	0.28	2	0	1	1	0	1
ET BENZENE	1.2	0.0	0.1	1.07	0.00	0.28	13	0	1	8	0	1
M+PXYLENE	4.4	0.1	0.4	3.93	0.61	1.14	48	1	4	30	1	2
2+4MC8	0.5	0.0	0.1	0.45	0.00	0.28	6	0	1	4	0	1
O XYLENE	1.8	0.1	0.2	1.61	0.61	0.57	20	1	2	12	1	1
N NONANE	0.3	0.0	0.1	0.27	0.00	0.28	4	0	1	2	0	1
IPRBENZENE	0.3	0.0	0.1	0.27	0.00	0.28	3	0	1	2	0	1
NPRBENZENE	0.3	0.0	0.0	0.27	0.00	0.00	3	0	0	2	0	0
1M3ETBENZ	1.4	0.0	0.1	1.25	0.00	0.28	15	0	1	10	0	1
135MEBENZ	0.6	0.0	0.0	0.54	0.00	0.00	7	0	0	4	0	0
1M2ETBENZ	0.4	0.0	0.1	0.36	0.00	0.28	4	0	1	3	0	1
124MBENZ	1.7	0.0	0.1	1.52	0.00	0.28	19	0	1	12	0	1
SBUBENZENE	0.2	0.0	0.0	0.18	0.00	0.00	2	0	0	1	0	0
N DECANE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.4	0.0	0.0	0.36	0.00	0.00	4	0	0	3	0	0
INDANE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.3	0.0	0.0	0.27	0.00	0.00	3	0	0	2	0	0
1M3PRBENZ	0.4	0.0	0.0	0.36	0.00	0.00	4	0	0	3	0	0
UNKNOWNS	4.6	0.3	0.9	4.10	1.84	2.56	51	3	9	31	2	6

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60601
DATE RUN: 06 21 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L85223673 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	90.4	14.7	37.2
GC PPMC	66.8	11.8	30.2

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	8.5	4.0	5.9	12.72	33.90	19.54	144	70	85	89	44	53
SATURATES	27.9	6.2	17.4	41.77	52.54	57.62	422	97	224	262	60	139
OLEFINS	11.4	0.6	3.0	17.07	5.08	9.93	168	9	38	105	6	23
ACETYLENE	2.8	0.0	0.0	4.19	0.00	0.00	38	0	0	24	0	0
NAPTHENES	1.0	0.2	0.6	1.50	1.69	1.99	15	3	8	9	2	5
AROMATICS	13.5	0.6	3.1	20.21	5.08	10.26	187	9	37	116	5	23
BENZENE	2.2	0.1	0.4	3.29	0.85	1.32	30	1	5	19	1	3
TULUENE	5.2	0.4	1.7	7.78	3.39	5.63	72	6	20	45	4	12
C8+AROM	6.1	0.1	1.0	9.13	0.85	3.31	86	1	12	53	1	7
UNKNOWN	1.7	0.2	0.2	0.00	0.00	0.00	24	3	2	15	2	1
INDIVIDUAL COMPONENTS												
METHANE	8.5	4.0	5.9	12.72	33.90	19.54	144	70	85	89	44	53
ETHYLENE	6.3	0.6	2.2	9.43	5.08	7.28	93	9	28	58	6	17
ETHANE	1.3	0.7	0.9	1.95	5.93	2.98	21	11	12	13	7	8
ACETYLENE	2.8	0.0	0.0	4.19	0.00	0.00	38	0	0	24	0	0
C3 + C3=	2.6	0.0	0.2	3.89	0.00	0.66	38	0	3	24	0	2
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.2	0.1	0.4	0.30	0.85	1.32	3	2	5	2	1	3
B1 + IB	1.2	0.0	0.1	1.80	0.00	0.33	18	0	1	11	0	1
NC4 +B=1=3	2.9	1.2	3.4	4.34	10.17	11.26	44	19	44	28	12	28
TBUTENE-2	0.2	0.0	0.0	0.38	0.00	0.00	3	0	0	2	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.1	0.0	0.0	0.15	0.00	0.00	1	0	0	1	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOPENTANE	2.7	1.1	2.7	4.04	9.32	8.94	41	17	35	25	11	22
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.1	0.0	0.0	0.15	0.00	0.00	1	0	0	1	0	0
NPENTANE	0.5	0.2	0.5	0.75	1.69	1.66	8	3	6	5	2	4
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60601
DATE RUN: 06 21 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVEN: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.2	0.0	0.0	0.30	0.00	0.00	3	0	0	2	0	0
CISPENT-2	0.0	0.0	0.1	0.00	0.00	0.33	0	0	1	0	0	1
2MBUT-2	0.4	0.0	0.4	0.60	0.00	1.32	6	0	5	4	0	3
22MBUTANE	0.1	0.0	0.0	0.15	0.00	0.00	2	0	0	1	0	0
CYPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.1	0.2	0.15	0.85	0.66	1	2	3	1	1	2
23MBUTANE	0.5	0.1	0.6	0.75	0.85	1.99	8	2	8	5	1	5
2MPENTANE	1.9	0.3	0.8	2.84	2.54	2.65	29	5	10	18	3	6
3MPENTANE	0.7	0.2	0.4	1.05	1.69	1.32	11	3	5	7	2	3
HEXENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
N HEXANE	0.4	0.1	0.2	0.60	0.85	0.66	6	2	3	4	1	2
TC6=3,=2	0.2	0.0	0.0	0.30	0.00	0.00	3	0	0	2	0	0
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.1	0.0	0.0	0.15	0.00	0.00	1	0	0	1	0	0
MCYP43M2C5	0.5	0.1	0.3	0.75	0.85	0.99	7	2	4	5	1	2
24MPENTANE	1.2	0.2	0.6	1.80	1.69	1.99	18	3	8	11	2	5
BENZENE	2.2	0.1	0.4	3.29	0.85	1.32	30	1	5	19	1	3
CYHEXANE	0.1	0.0	0.0	0.15	0.00	0.00	1	0	0	1	0	0
2MC6+23MC5	2.7	0.3	1.2	4.04	2.54	3.97	41	5	15	25	3	10
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.9	0.1	0.4	1.35	0.85	1.32	14	2	5	8	1	3
224MPENTAN	5.7	1.0	2.9	8.53	8.47	9.60	86	16	37	53	10	23
NHEPTANE	0.7	0.1	0.2	1.05	0.85	0.66	11	2	3	7	1	2
MCYHEXANE	0.2	0.0	0.1	0.30	0.00	0.33	3	0	1	2	0	1
25MHEXANE	0.4	0.0	0.2	0.60	0.00	0.66	6	0	3	4	0	2
24MC6+233M	0.6	0.1	0.3	0.90	0.85	0.99	9	2	4	6	1	2
234MC5	1.2	0.2	0.5	1.80	1.69	1.66	18	3	6	11	2	4
TOLUENE	5.2	0.4	1.7	7.76	3.39	5.63	72	6	20	45	4	12
23MC6+4MC7	0.6	0.1	0.2	0.90	0.85	0.66	9	2	3	6	1	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60801
DATE RUN: 06 21 78
CAR: 1976 CHEVROLET ST #-CALIF VIN: 1L35L65223673 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	0.7	0.0	0.3	1.05	0.00	0.99	11	0	4	7	0	2
3MHEPTANE	0.6	0.0	0.2	0.90	0.00	0.66	9	0	3	6	0	2
255MC6	0.5	0.1	0.2	0.75	0.85	0.66	8	2	3	5	1	2
N OCTANE	0.3	0.0	0.1	0.45	0.00	0.33	5	0	1	3	0	1
223MC6	0.1	0.0	0.0	0.15	0.00	0.00	2	0	0	1	0	0
ETCYHEXANE	0.1	0.0	0.0	0.15	0.00	0.00	1	0	0	1	0	0
ET BENZENE	0.7	0.0	0.1	1.05	0.00	0.33	10	0	1	6	0	1
M+PXYLENE	2.3	0.1	0.4	3.44	0.65	1.32	32	1	5	20	1	3
2+4MC8	0.3	0.0	0.1	0.45	0.00	0.33	5	0	1	3	0	1
O XYLENE	0.9	0.0	0.2	1.35	0.00	0.66	13	0	2	8	0	1
N NONANE	0.2	0.0	0.1	0.30	0.00	0.33	3	0	1	2	0	1
IPRBENZENE	0.2	0.0	0.1	0.30	0.00	0.33	3	0	1	2	0	1
NPRBENZENE	0.1	0.0	0.0	0.15	0.00	0.00	1	0	0	1	0	0
1M3ETBENZ	0.6	0.0	0.0	0.90	0.00	0.00	8	0	0	5	0	0
135MEBENZ	0.2	0.0	0.0	0.30	0.00	0.00	3	0	0	2	0	0
1M2ETBENZ	0.2	0.0	0.1	0.30	0.00	0.33	3	0	1	2	0	1
124MBENZ	0.6	0.0	0.1	0.90	0.00	0.33	8	0	1	5	0	1
SBUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.1	0.0	0.0	0.15	0.00	0.00	1	0	0	1	0	0
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.15	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.1	0.0	0.0	0.15	0.00	0.00	1	0	0	1	0	0
UNKNOWNS	1.7	0.2	0.2	2.54	1.69	0.66	24	3	2	15	2	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60802
DATE RUN: 06 20 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L36L85223673 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	100.0	23.2	44.1
GC PPMC	90.2	22.6	42.2

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	9.5	5.4	7.1	10.53	23.89	16.82	134	78	83	83	48	52
SATURATES	39.5	13.0	24.8	43.79	57.52	58.77	496	168	260	309	104	162
OLEFINS	14.0	1.2	4.0	15.52	5.31	9.48	172	15	41	107	9	25
ACETYLENE	2.7	0.0	0.0	2.99	0.00	0.00	31	0	0	19	0	0
NAPTHENES	1.6	0.3	0.7	1.77	1.33	1.66	20	4	7	12	2	4
AROMATICS	19.1	1.0	3.8	21.18	4.42	9.00	221	12	37	137	7	23
BENZENE	2.7	0.2	0.6	2.99	0.88	1.42	31	2	6	19	1	4
TOLUENE	6.6	0.6	1.5	7.32	2.65	3.55	76	7	14	47	4	9
C8+AROM	9.8	0.2	1.7	10.86	0.88	4.03	115	2	17	72	1	10
UNKNOWN	3.8	1.7	1.8	0.00	0.00	0.00	45	21	18	28	13	11
INDIVIDUAL COMPONENTS												
METHANE	9.5	5.4	7.1	10.53	23.89	16.82	134	78	83	83	48	52
ETHYLENE	6.8	0.8	2.7	7.54	3.54	6.40	84	10	28	52	6	17
ETHANE	1.5	0.8	1.2	1.66	3.54	2.84	20	11	13	12	7	8
ACETYLENE	2.7	0.0	0.0	2.99	0.00	0.00	31	0	0	19	0	0
C3 + C3=	3.0	0.3	0.5	3.33	1.33	1.18	37	4	5	23	2	3
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.4	0.4	0.6	0.44	1.77	1.42	5	5	6	3	3	4
B1 + IB	1.6	0.1	0.2	1.77	0.44	0.47	20	1	2	12	1	1
NC4 +B=1=3	3.7	2.5	4.3	4.10	11.06	10.19	47	33	46	29	20	28
TBUTENE-2	0.4	0.0	0.1	0.44	0.00	0.24	5	0	1	3	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.1	0.22	0.00	0.24	2	0	1	2	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	3.4	1.9	3.6	3.77	8.41	8.53	43	25	38	27	15	24
PENTENE-1	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
NPENTANE	0.6	0.4	0.7	0.67	1.77	1.66	8	5	7	5	3	5
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60802
DATE RUN: 06 20 76
CAR: 1978 CHEVROLET S1 W-CALIF VIN: 1L35L8S223673 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.3	0.0	0.1	0.33	0.00	0.24	4	0	1	2	0	1
CISPENT-2	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.5	0.0	0.2	0.55	0.00	0.47	6	0	2	4	0	1
22MBUTANE	0.0	0.0	0.1	0.00	0.00	0.24	0	0	1	0	0	1
CYPENTENE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
23MBUTANE	0.8	0.3	0.5	0.89	1.33	1.18	10	4	5	6	2	3
2MPENTANE	2.5	0.7	1.4	2.77	3.10	3.32	32	9	15	20	6	9
3MPENTANE	1.1	0.3	0.6	1.22	1.33	1.42	14	4	6	9	2	4
HEXENE-1	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
N HEXANE	0.7	0.2	0.4	0.78	0.88	0.95	9	3	4	5	2	3
TC6=3,=2	0.4	0.0	0.1	0.44	0.00	0.24	5	0	1	3	0	1
CC6=3	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
MCYP43M2C5	0.8	0.2	0.4	0.89	0.88	0.95	10	3	4	6	2	3
24MPENTANE	1.8	0.4	0.9	2.00	1.77	2.13	23	5	9	14	3	6
BENZENE	2.7	0.2	0.6	2.99	0.88	1.42	31	2	6	19	1	4
CYHEXANE	0.2	0.1	0.1	0.22	0.44	0.24	2	1	1	2	1	1
2MC6+23MC5	4.0	0.9	1.8	4.43	3.98	4.27	50	12	19	31	7	12
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.4	0.3	0.6	1.55	1.33	1.42	18	4	6	11	2	4
224MPENTAN	8.3	2.3	4.5	9.20	10.18	10.66	104	30	47	65	18	29
NHEPTANE	1.1	0.2	0.4	1.22	0.88	0.95	14	3	4	9	2	3
MCYHEXANE	0.3	0.0	0.1	0.33	0.00	0.24	4	0	1	2	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.7	0.3	0.7	1.88	1.33	1.66	21	4	7	13	2	5
234MC5	1.9	0.4	0.8	2.11	1.77	1.90	24	5	8	15	3	5
TOLUENE	6.6	0.6	1.5	7.32	2.65	3.55	76	7	14	47	4	9
23MC6+4MC7	0.8	0.1	0.3	0.89	0.44	0.71	10	1	3	6	1	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60802
DATE RUN: 06 20 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35LHS223673 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM		
	BAG 1	2	3		BAG 1	2	3		BAG 1	2	3		BAG 1	2	3
34MHEXANE	1.0	0.2	0.4		1.11	0.88	0.95		13	3	4		8	2	3
3MHEPTANE	0.8	0.1	0.3		0.89	0.44	0.71		10	1	3		6	1	2
255MC6	0.8	0.1	0.3		0.89	0.44	0.71		10	1	3		6	1	2
N OCTANE	0.4	0.1	0.2		0.44	0.44	0.47		5	1	2		3	1	1
223MC6	0.1	0.0	0.0		0.11	0.00	0.00		1	0	0		1	0	0
ETCYHEXANE	0.2	0.0	0.1		0.22	0.00	0.24		2	0	1		2	0	1
ET BENZENE	0.9	0.0	0.1		1.00	0.00	0.24		10	0	1		7	0	1
M+PXYLENE	3.2	0.1	0.5		3.55	0.44	1.18		37	1	5		23	1	3
2+4MC8	0.4	0.1	0.1		0.44	0.44	0.24		5	1	1		3	1	1
O XYLENE	1.3	0.1	0.2		1.44	0.44	0.47		15	1	2		9	1	1
N NONANE	0.2	0.0	0.1		0.22	0.00	0.24		3	0	1		2	0	1
IPRBENZENE	0.2	0.0	0.1		0.22	0.00	0.24		2	0	1		1	0	1
NPRBENZENE	0.2	0.0	0.0		0.22	0.00	0.00		2	0	0		1	0	0
1M3ETBENZ	1.0	0.0	0.2		1.11	0.00	0.47		12	0	2		7	0	1
135MEBENZ	0.4	0.0	0.1		0.44	0.00	0.24		5	0	1		3	0	1
1M2ETBENZ	0.4	0.0	0.2		0.44	0.00	0.47		5	0	2		3	0	1
124MBENZ	1.2	0.0	0.2		1.33	0.00	0.47		14	0	2		9	0	1
SBUBENZENE	0.2	0.0	0.1		0.22	0.00	0.24		2	0	1		1	0	1
N DECANE	0.1	0.0	0.0		0.11	0.00	0.00		1	0	0		1	0	0
123MBENZ	0.3	0.0	0.0		0.33	0.00	0.00		4	0	0		2	0	0
INDANE	0.1	0.0	0.0		0.11	0.00	0.00		1	0	0		1	0	0
IJEBENZENE	0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
NBUBENZENE	0.2	0.0	0.0		0.22	0.00	0.00		2	0	0		1	0	0
1M3PRBENZ	0.2	0.0	0.0		0.22	0.00	0.00		2	0	0		1	0	0
UNKNOWNS	3.8	1.7	1.8		4.21	7.52	4.27		45	21	18		28	13	11

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60611
DATE RUN: 06 22 78 AIR CONDITIONER USED
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L85223673 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	107.2	11.2	32.2
GC PPMC	84.0	9.3	19.5

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	9.6	4.3	5.7	11.43	46.24	29.23	153	71	110	95	44	68
SATURATES	35.6	3.6	9.6	42.38	40.86	49.23	508	56	166	316	35	103
OLEFINS	13.9	0.6	1.9	16.55	6.45	9.74	194	9	32	121	5	20
ACETYLENE	2.7	0.0	0.0	3.21	0.00	0.00	35	0	0	22	0	0
NAPTHENES	1.5	0.1	0.2	1.79	1.08	1.03	21	1	3	13	1	2
AROMATICS	18.9	0.2	1.8	22.50	2.15	9.23	248	3	28	154	2	18
BENZENE	2.9	0.1	0.5	3.45	1.08	2.56	38	1	8	23	1	5
TOLUENE	7.3	0.1	0.8	8.69	1.08	4.10	96	1	13	59	1	8
C8+AROM	8.7	0.0	0.5	10.36	0.00	2.56	116	0	8	72	0	5
UNKNOWN	1.8	0.3	0.3	0.00	0.00	0.00	24	4	5	15	3	3
INDIVIDUAL COMPONENTS												
METHANE	9.6	4.3	5.7	11.43	46.24	29.23	153	71	110	95	44	68
ETHYLENE	7.2	0.5	1.6	8.57	5.38	8.21	100	7	27	62	5	17
ETHANE	1.4	0.6	0.7	1.67	6.45	3.59	21	9	13	13	6	8
ACETYLENE	2.7	0.0	0.0	3.21	0.00	0.00	35	0	0	22	0	0
C3 + C3=	3.2	0.0	0.2	3.81	0.00	1.03	45	0	3	28	0	2
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.3	0.1	0.2	0.36	1.08	1.03	4	2	3	3	1	2
B1 + IB	1.7	0.0	0.0	2.02	0.00	0.00	24	0	0	15	0	0
NC4 +B=1=3	2.9	0.8	1.7	3.45	6.60	8.72	42	12	30	26	7	18
TBUTENE-2	0.3	0.0	0.0	0.36	0.00	0.00	4	0	0	3	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	2.8	0.7	1.4	3.33	7.53	7.18	40	10	24	25	6	15
PENTENE-1	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
NPENTANE	0.6	0.1	0.2	0.71	1.08	1.03	9	1	3	5	1	2
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60811
DATE RUN: 06 22 78 AIR CONDITIONER USED
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.2	0.0	0.0	0.24	0.00	0.00	3	0	0	2	0	0
CISPENT-2	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.5	0.1	0.1	0.60	1.08	0.51	7	1	2	4	1	1
22MBUTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
23MBUTANE	0.6	0.1	0.2	0.71	1.08	1.03	9	1	3	5	1	2
2MPENTANE	1.9	0.2	0.6	2.26	2.15	3.08	27	3	10	17	2	6
3MPENTANE	0.9	0.1	0.3	1.07	1.08	1.54	13	1	5	8	1	3
HEXENE-1	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
N HEXANE	0.5	0.0	0.2	0.60	0.00	1.03	7	0	3	4	0	2
TC6=3,=2	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
MCYP43M2C5	0.7	0.1	0.2	0.83	1.08	1.03	10	1	3	6	1	2
24MPENTANE	1.7	0.1	0.3	2.02	1.08	1.54	24	1	5	15	1	3
BENZENE	2.9	0.1	0.5	3.45	1.08	2.56	38	1	8	23	1	5
CYHEXANE	0.2	0.0	0.0	0.24	0.00	0.00	3	0	0	2	0	0
2MC6+23MC5	3.9	0.2	0.7	4.64	2.15	3.59	56	3	12	35	2	7
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.3	0.1	0.2	1.55	1.08	1.03	19	1	3	12	1	2
224MPENTAN	8.1	0.6	1.7	9.64	6.45	8.72	115	9	29	71	6	18
NHEPTANE	0.9	0.0	0.2	1.07	0.00	1.03	13	0	3	8	0	2
MCYHEXANE	0.3	0.0	0.0	0.36	0.00	0.00	4	0	0	3	0	0
25MHEXANE	0.6	0.0	0.0	0.71	0.00	0.00	9	0	0	5	0	0
24MC6+233M	1.0	0.0	0.1	1.19	0.00	0.51	14	0	2	9	0	1
234MC5	1.7	0.1	0.3	2.02	1.08	1.54	24	1	5	15	1	3
TOLUENE	7.3	0.1	0.8	8.69	1.08	4.10	96	1	13	59	1	8
23MC6+4MC7	0.8	0.0	0.1	0.95	0.00	0.51	11	0	2	7	0	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60H11
DATE RUN: 06 22 78 AIR CONDITIONER USED
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L85223673 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.0	0.0	0.1	1.19	0.00	0.51	14	0	2	9	0	1
3MHEPTANE	0.9	0.0	0.1	1.07	0.00	0.51	13	0	2	8	0	1
25DMC6	0.7	0.0	0.1	0.83	0.00	0.51	10	0	2	6	0	1
N OCTANE	0.4	0.0	0.1	0.48	0.00	0.51	6	0	2	4	0	1
223MC6	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.2	0.0	0.0	0.24	0.00	0.00	3	0	0	2	0	0
ET BENZENE	0.9	0.0	0.1	1.07	0.00	0.51	12	0	2	7	0	1
M+PXYLENE	3.4	0.0	0.3	4.05	0.00	1.54	45	0	5	28	0	3
2+4MC8	0.4	0.0	0.1	0.48	0.00	0.51	6	0	2	4	0	1
O XYLENE	1.3	0.0	0.1	1.55	0.00	0.51	17	0	2	11	0	1
N NONANE	0.2	0.0	0.0	0.24	0.00	0.00	3	0	0	2	0	0
IPRBENZENE	0.2	0.0	0.0	0.24	0.00	0.00	3	0	0	2	0	0
NPRBENZENE	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
1M3ETBENZ	0.8	0.0	0.0	0.95	0.00	0.00	11	0	0	7	0	0
135MEBENZ	0.3	0.0	0.0	0.36	0.00	0.00	4	0	0	2	0	0
1M2ETBENZ	0.2	0.0	0.0	0.24	0.00	0.00	3	0	0	2	0	0
124MBENZ	1.0	0.0	0.0	1.19	0.00	0.00	13	0	0	8	0	0
SBUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.2	0.0	0.0	0.24	0.00	0.00	3	0	0	2	0	0
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EDBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.2	0.0	0.0	0.24	0.00	0.00	3	0	0	2	0	0
UNKNOWNS	1.8	0.3	0.3	2.14	3.23	1.54	24	4	5	15	3	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60812
DATE RUN: 07 19 76 AIR CONDITIONER USED
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	116.4	15.8	30.6
GC PPMC	99.4	14.2	37.1

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	11.9	4.7	7.0	11.97	33.10	18.87	176	67	64	109	42	39
SATURATES	41.2	7.0	21.1	41.45	49.30	56.87	544	90	171	338	56	107
OLEFINS	16.5	1.5	2.7	16.60	10.56	7.28	213	19	21	132	12	13
ACETYLENE	1.8	0.0	0.0	1.81	0.00	0.00	22	0	0	13	0	0
NAPTHENES	1.8	0.1	0.9	1.81	0.70	2.43	23	1	7	14	1	4
AROMATICS	22.3	0.4	4.1	22.43	2.82	11.05	270	5	31	168	3	19
BENZENE	3.2	0.1	0.6	3.22	0.70	1.62	38	1	4	24	1	3
TOLUENE	8.2	0.3	1.5	8.25	2.11	4.04	99	4	11	62	2	7
C8+AROM	10.9	0.0	2.0	10.97	0.00	5.39	134	0	15	83	0	9
UNKNOWN	3.9	0.5	1.3	0.00	0.00	0.00	48	6	10	30	4	6
INDIVIDUAL COMPONENTS												
METHANE	11.9	4.7	7.0	11.97	33.10	18.87	176	67	64	109	42	39
ETHYLENE	6.2	0.5	1.8	8.25	3.52	4.85	106	6	14	66	4	9
ETHANE	1.0	0.5	0.9	1.01	3.52	2.43	14	7	8	9	4	5
ACETYLENE	1.8	0.0	0.0	1.81	0.00	0.00	22	0	0	13	0	0
C3 + C3=	3.3	0.9	0.3	3.32	6.34	0.81	43	11	2	26	7	1
C=C=C	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.3	0.0	0.4	0.30	0.00	1.08	4	0	3	2	0	2
B1 + 1B	2.0	0.0	0.2	2.01	0.00	0.54	26	0	2	16	0	1
NC4 +M=1=3	3.0	0.0	3.1	3.02	0.00	8.36	40	0	25	25	0	16
TBUTENE-2	0.4	0.0	0.1	0.40	0.00	0.27	5	0	1	3	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.0	0.20	0.00	0.00	3	0	0	2	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	2.9	2.6	2.7	2.92	18.31	7.28	38	34	22	24	21	14
PENTENE-1	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.2	0.0	0.0	0.20	0.00	0.00	3	0	0	2	0	0
NPENTANE	0.6	0.4	0.5	0.60	2.62	1.35	8	5	4	5	3	3
2MB=1=3	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60812
DATE RUN: 07 19 78 AIR CONDITIONER USED
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.3	0.0	0.1	0.30	0.00	0.27	4	0	1	2	0	0
CISPENT-2	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.5	0.1	0.1	0.50	0.70	0.27	6	1	1	4	1	0
22MBUTANE	0.2	0.0	0.1	0.20	0.00	0.27	3	0	1	2	0	1
CYPENTENE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.2	0.0	0.1	0.20	0.00	0.27	3	0	1	2	0	0
23MBUTANE	1.1	0.2	0.6	1.11	1.41	1.62	15	3	5	9	2	3
2MPENTANE	2.1	0.3	1.0	2.11	2.11	2.70	28	4	8	17	2	5
3MPENTANE	1.1	0.1	0.5	1.11	0.70	1.35	15	1	4	9	1	3
HEXENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
N HEXANE	0.7	0.1	0.3	0.70	0.70	0.81	9	1	2	6	1	2
TC6=3=2	0.5	0.0	0.1	0.50	0.00	0.27	6	0	1	4	0	0
CC6=3	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
MCYP43M2C5	0.9	0.1	0.4	0.91	0.70	1.08	12	1	3	7	1	2
24MPENTANE	2.0	0.2	0.8	2.01	1.41	2.16	26	3	6	16	2	4
BENZENE	3.2	0.1	0.6	3.22	0.70	1.62	38	1	4	24	1	3
CYHEXANE	0.2	0.0	0.2	0.20	0.00	0.54	3	0	2	2	0	1
2MC6+23MC5	4.8	0.4	1.8	4.83	2.82	4.85	63	5	15	39	3	9
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.6	0.1	0.6	1.61	0.70	1.62	21	1	5	13	1	3
224MPENTAN	9.2	1.2	4.0	9.26	8.45	10.78	121	15	32	75	10	20
NHEPTANE	1.3	0.1	0.5	1.31	0.70	1.35	17	1	4	11	1	3
MCYHEXANE	0.3	0.0	0.1	0.30	0.00	0.27	4	0	1	2	0	0
25MHEXANE	0.0	0.1	0.0	0.00	0.70	0.00	0	1	0	0	1	0
24MC6+233M	2.0	0.1	0.7	2.01	0.70	1.89	26	1	6	16	1	4
234MC5	2.4	0.2	0.8	2.41	1.41	2.16	32	3	6	20	2	4
TOLUENE	8.2	0.3	1.5	8.25	2.11	4.04	99	4	11	62	2	7
23MC6+4MC7	0.9	0.1	0.3	0.91	0.70	0.81	12	1	2	7	1	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60812
DATE RUN: 07 19 78 AIR CONDITIONER USED
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVEN: WAND FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.1	0.1	0.4	1.11	0.70	1.08	14	1	3	9	1	2
3MHEPTANE	0.9	0.1	0.3	0.91	0.70	0.81	12	1	2	7	1	2
255MC6	0.8	0.1	0.3	0.80	0.70	0.81	10	1	2	7	1	2
N OCTANE	0.5	0.0	0.2	0.50	0.00	0.54	7	0	2	4	0	1
223MC6	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
ETCYHLXANE	0.2	0.0	0.1	0.20	0.00	0.27	3	0	1	2	0	0
ET BENZENE	1.2	0.0	0.1	1.21	0.00	0.27	15	0	1	9	0	0
M+PXYLENE	3.9	0.0	0.6	3.92	0.00	1.62	48	0	5	30	0	3
2+4MC8	0.4	0.0	0.2	0.40	0.00	0.54	5	0	2	3	0	1
O XYLENE	1.5	0.0	0.3	1.51	0.00	0.81	18	0	2	11	0	1
N NONANE	0.2	0.0	0.1	0.20	0.00	0.27	3	0	1	2	0	1
IPRBENZENE	0.2	0.0	0.1	0.20	0.00	0.27	2	0	1	2	0	0
NPRBENZENE	0.2	0.0	0.2	0.20	0.00	0.54	2	0	2	2	0	1
1M3ETBENZ	1.1	0.0	0.1	1.11	0.00	0.27	14	0	1	8	0	0
135MEBENZ	0.4	0.0	0.0	0.40	0.00	0.00	5	0	0	3	0	0
1M2ETBENZ	0.4	0.0	0.2	0.40	0.00	0.54	5	0	2	3	0	1
124MBENZ	1.2	0.0	0.3	1.21	0.00	0.81	15	0	2	9	0	1
SBUBENZENE	0.1	0.0	0.1	0.10	0.00	0.27	1	0	1	1	0	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.2	0.0	0.0	0.20	0.00	0.00	2	0	0	2	0	0
INDANE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
13EDBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.2	0.0	0.0	0.20	0.00	0.00	2	0	0	2	0	0
1M3PRBENZ	0.2	0.0	0.0	0.20	0.00	0.00	2	0	0	2	0	0
UNKNOWNS	3.9	0.5	1.3	3.92	3.52	3.50	48	6	10	30	4	6

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60901
DATE RUN: 06 23 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L85223673 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	119.2	13.9	45.6
GC PPMC	99.0	12.0	28.5

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	9.7	5.5	7.2	9.80	45.83	25.26	145	83	134	90	52	84
SATURATES	45.9	5.2	15.7	46.36	43.33	55.09	614	70	262	381	44	163
OLEFINS	12.5	0.5	2.4	12.63	4.17	8.42	163	7	39	101	4	24
ACETYLENE	2.4	0.0	0.2	2.42	0.00	0.70	29	0	3	18	0	2
NAPTHENES	1.8	0.1	0.4	1.82	0.83	1.40	24	1	7	15	1	4
AROMATICS	23.6	0.5	2.0	23.84	4.17	7.02	289	6	31	180	4	19
BENZENE	2.8	0.1	0.4	2.83	0.83	1.40	34	1	6	21	1	4
TOLUENE	9.4	0.4	1.1	9.49	3.33	3.86	115	5	17	72	3	10
C8+AROM	11.4	0.0	0.5	11.52	0.00	1.75	142	0	8	88	0	5
UNKNOWN	3.1	0.2	0.6	0.00	0.00	0.00	39	3	9	24	2	6
INDIVIDUAL COMPONENTS												
METHANE	9.7	5.5	7.2	9.80	45.83	25.26	145	83	134	90	52	84
ETHYLENE	6.5	0.5	2.8	6.57	4.17	7.02	85	7	33	53	4	20
ETHANE	1.3	0.7	0.9	1.31	5.83	3.16	18	10	16	11	6	10
ACETYLENE	2.4	0.0	0.2	2.42	0.00	0.70	29	0	3	18	0	2
C3 + C3=	2.8	0.0	0.2	2.83	0.00	0.70	37	0	3	23	0	2
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.3	0.1	0.4	0.30	0.83	1.40	4	1	7	3	1	4
B1 + 1B	1.4	0.0	0.1	1.41	0.00	0.35	18	0	2	11	0	1
NC4 +B=1=3	3.5	1.2	3.2	3.54	10.00	11.23	47	16	54	29	10	34
TBUTENE-2	0.2	0.0	0.0	0.20	0.00	0.00	3	0	0	2	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	3.0	0.8	2.4	3.03	6.67	8.42	40	11	40	25	7	25
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
NPENTANE	0.6	0.1	0.4	0.61	0.83	1.40	8	1	7	5	1	4
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60901
DATE RUN: 06 23 76
CAR: 1978 CHEVROLLET ST #-CALIF VIN: 1L35L8S223673 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT-2	0.2	0.0	0.0	0.20	0.00	0.00	3	0	0	2	0	0
CISPENT-2	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.5	0.0	0.1	0.51	0.00	0.35	7	0	2	4	0	1
22MBUTANE	0.1	0.0	0.1	0.10	0.00	0.35	1	0	2	1	0	1
CYPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
23MBUTANE	0.8	0.1	0.3	0.81	0.83	1.05	11	1	5	7	1	3
2MPENTANE	2.4	0.3	0.5	2.42	2.50	1.75	32	4	8	20	3	5
3MPENTANE	1.0	0.1	0.2	1.01	0.83	0.70	13	1	3	8	1	2
HEXENE-1	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
N HEXANE	0.6	0.1	0.4	0.61	0.83	1.40	8	1	7	5	1	4
TC6=3,=2	0.3	0.0	0.0	0.30	0.00	0.00	4	0	0	2	0	0
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
MCYP4.3M2C5	0.9	0.1	0.3	0.91	0.83	1.05	12	1	5	7	1	3
24MPENTANE	2.1	0.1	0.5	2.12	0.83	1.75	28	1	8	17	1	5
BENZENE	2.8	0.1	0.4	2.83	0.83	1.40	34	1	6	21	1	4
CYHEXANE	0.2	0.0	0.0	0.20	0.00	0.00	3	0	0	2	0	0
2MC6+23MC5	5.1	0.3	1.2	5.15	2.50	4.21	68	4	20	42	3	12
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.7	0.1	0.4	1.72	0.83	1.40	23	1	7	14	1	4
224MPENTAN	10.8	0.9	2.7	10.91	7.50	9.47	144	12	45	89	8	28
NHEPTANE	1.4	0.0	0.2	1.41	0.00	0.70	19	0	3	12	0	2
MCYHEXANE	0.4	0.0	0.1	0.40	0.00	0.35	5	0	2	3	0	1
25MHEXANE	0.9	0.0	0.0	0.91	0.00	0.00	12	0	0	7	0	0
24MC6+233M	1.3	0.1	0.4	1.31	0.83	1.40	17	1	7	11	1	4
234MC5	2.5	0.1	0.5	2.53	0.83	1.75	33	1	8	21	1	5
TOLUENE	9.4	0.4	1.1	9.49	3.33	3.86	115	5	17	72	3	10
23MC6+4MC7	1.2	0.1	0.2	1.21	0.83	0.70	16	1	3	10	1	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60901
DATE RUN: 06 23 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L85223673 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
34MHEXANE	1.4	0.0	0.2	1.41	0.00	0.70	19	0	3	12	0	2
3MHEPTANE	1.2	0.0	0.2	1.21	0.00	0.70	16	0	3	10	0	2
255MC6	1.0	0.0	0.2	1.01	0.00	0.70	13	0	3	8	0	2
N OCTANE	0.7	0.0	0.1	0.71	0.00	0.35	9	0	2	6	0	1
223MC6	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.2	0.0	0.0	0.20	0.00	0.00	3	0	0	2	0	0
ET BENZENE	1.2	0.0	0.1	1.21	0.00	0.35	15	0	2	9	0	1
M+PXYLENE	4.5	0.0	0.3	4.55	0.00	1.05	56	0	5	35	0	3
2+4MC8	0.6	0.0	0.1	0.61	0.00	0.35	8	0	2	5	0	1
O XYLENE	1.8	0.0	0.1	1.82	0.00	0.35	22	0	2	14	0	1
N NONANE	0.3	0.0	0.0	0.30	0.00	0.00	4	0	0	2	0	0
IPRBENZENE	0.3	0.0	0.0	0.30	0.00	0.00	4	0	0	2	0	0
NPRBENZENE	0.2	0.0	0.0	0.20	0.00	0.00	2	0	0	2	0	0
1M3ETBENZ	1.0	0.0	0.0	1.01	0.00	0.00	12	0	0	8	0	0
135MEBENZ	0.4	0.0	0.0	0.40	0.00	0.00	5	0	0	3	0	0
1M2ETBENZ	0.3	0.0	0.0	0.30	0.00	0.00	4	0	0	2	0	0
124MBENZ	1.1	0.0	0.0	1.11	0.00	0.00	14	0	0	9	0	0
SBUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.2	0.0	0.0	0.20	0.00	0.00	2	0	0	2	0	0
INDANE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
13EMBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.2	0.0	0.0	0.20	0.00	0.00	2	0	0	1	0	0
UNKNOWNS	3.1	0.2	0.6	3.13	1.67	2.11	39	3	9	24	2	6

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60902
DATE RUN: 07 18 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	106.6	15.5	47.8
GC PPMC	94.4	12.1	51.1

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	6.6	0.6	6.8	6.99	4.96	13.31	95	12	79	59	8	49
SATURATES	45.0	9.9	28.8	47.67	81.82	56.36	582	182	299	362	113	186
OLEFINS	13.7	0.5	3.4	14.51	4.13	6.65	173	9	34	108	6	21
ACETYLENE	1.2	0.0	0.0	1.27	0.00	0.00	14	0	0	9	0	0
NAPTHENES	1.9	0.2	1.2	2.01	1.65	2.35	24	4	12	15	2	8
AROMATICS	21.2	0.7	6.6	22.46	5.79	12.92	252	12	63	156	7	39
BENZENE	2.7	0.2	0.8	2.86	1.65	1.57	32	3	8	20	2	5
TOLUENE	7.7	0.5	1.9	8.16	4.13	3.72	91	8	18	57	5	11
C8+AROM	10.8	0.0	3.9	11.44	0.00	7.63	130	0	38	81	0	23
UNKNOWN	4.6	0.2	4.3	0.00	0.00	0.00	58	3	42	36	2	26
INDIVIDUAL COMPONENTS												
METHANE	6.6	0.6	6.8	6.99	4.96	13.31	95	12	79	59	8	49
ETHYLENE	5.4	0.1	2.0	5.72	0.83	3.91	68	2	20	42	1	13
ETHANE	1.2	0.1	1.1	1.27	0.83	2.15	16	2	12	10	1	7
ACETYLENE	1.2	0.0	0.0	1.27	0.00	0.00	14	0	0	9	0	0
C3 + C3=	2.8	0.1	0.5	2.97	0.83	0.98	35	2	5	22	1	3
C=C=C	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.4	0.2	0.5	0.42	1.65	0.98	5	4	5	3	2	3
B1 + IB	1.7	0.1	0.3	1.80	0.83	0.59	21	2	3	13	1	2
NC4 +B=1=3	3.9	2.1	4.5	4.13	17.36	8.81	51	39	47	32	24	29
TBUTENE-2	0.4	0.0	0.0	0.42	0.00	0.00	5	0	0	3	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.0	0.21	0.00	0.00	3	0	0	2	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	3.5	1.6	3.6	3.71	13.22	7.05	45	30	38	28	18	23
PENTENE-1	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.2	0.0	0.0	0.21	0.00	0.00	3	0	0	2	0	0
NPENTANE	0.6	0.3	0.6	0.64	2.48	1.17	8	6	6	5	3	4
2MB=1=3	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60902
DATE RUN: 07 18 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35LH5223673 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.3	0.0	0.1	0.32	0.00	0.20	4	0	1	2	0	1
CISPENT-2	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.6	0.2	0.2	0.64	1.65	0.39	8	4	2	5	2	1
22MBUTANE	0.3	0.0	0.2	0.32	0.00	0.39	4	0	2	2	0	1
CYPENTENE	0.3	0.0	0.0	0.32	0.00	0.00	4	0	0	2	0	0
3MPENTENE	0.2	0.0	0.0	0.21	0.00	0.00	3	0	0	2	0	0
CYPENTANE	0.2	0.0	0.2	0.21	0.00	0.39	3	0	2	2	0	1
23MBUTANE	1.1	0.2	0.7	1.17	1.65	1.37	14	4	7	9	2	5
2MPENTANE	1.9	0.6	1.3	2.01	4.96	2.54	25	11	13	15	7	8
3MPENTANE	1.1	0.2	0.8	1.17	1.65	1.57	14	4	8	9	2	5
HEXENE-1	0.3	0.0	0.1	0.32	0.00	0.20	4	0	1	2	0	1
N HEXANE	0.8	0.2	0.5	0.85	1.65	0.98	10	4	5	6	2	3
TC6=3,=2	0.5	0.0	0.2	0.53	0.00	0.39	6	0	2	4	0	1
CC6=3	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.2	0.0	0.0	0.21	0.00	0.00	3	0	0	2	0	0
MCYP43M2C5	0.9	0.1	0.5	0.95	0.83	0.98	11	2	5	7	1	3
24MPENTANE	2.1	0.3	1.1	2.22	2.48	2.15	27	6	11	17	3	7
BENZENE	2.7	0.2	0.8	2.86	1.65	1.57	32	3	8	20	2	5
CYHEXANE	0.2	0.1	0.2	0.21	0.83	0.39	3	2	2	2	1	1
2MC6+23MC5	4.8	0.7	2.3	5.08	5.79	4.50	62	13	24	38	8	15
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.7	0.2	0.6	1.80	1.65	1.57	22	4	8	14	2	5
224MPENTAN	9.8	2.0	5.3	10.38	16.53	10.37	126	37	55	78	23	34
NHEPTANE	1.4	0.2	0.6	1.48	1.65	1.17	18	4	6	11	2	4
MCYHEXANE	0.4	0.0	0.2	0.42	0.00	0.39	5	0	2	3	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+23IM	2.2	0.2	1.0	2.33	1.65	1.96	28	4	10	18	2	6
234MC5	2.6	0.3	1.1	2.75	2.48	2.15	33	5	11	21	3	7
TOLUENE	7.7	0.5	1.9	6.16	4.13	3.72	91	8	18	57	5	11
23MC6+4MC7	1.0	0.1	0.4	1.06	0.83	0.78	13	2	4	8	1	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60902
DATE RUN: 07 18 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.2	0.1	0.6	1.27	0.83	1.17	15	2	6	10	1	4
3MHEPTANE	1.0	0.1	0.5	1.06	0.83	0.98	13	2	5	8	1	3
255MC6	1.0	0.1	0.5	1.06	0.83	0.98	13	2	5	8	1	3
N OCTANE	0.6	0.1	0.3	0.64	0.83	0.59	8	2	3	5	1	2
223MC6	0.1	0.0	0.1	0.11	0.00	0.20	1	0	1	1	0	1
ETCYHEXANE	0.2	0.0	0.1	0.21	0.00	0.20	3	0	1	2	0	1
ET BENZENE	1.0	0.0	0.2	1.06	0.00	0.39	12	0	2	7	0	1
M+PXYLENE	3.7	0.0	0.8	3.92	0.00	1.57	44	0	8	27	0	5
2+4MC8	0.4	0.0	0.2	0.42	0.00	0.39	5	0	2	3	0	1
O XYLENE	1.5	0.0	0.4	1.59	0.00	0.78	18	0	4	11	0	2
N NONANE	0.2	0.0	0.2	0.21	0.00	0.39	3	0	2	2	0	1
IPRBENZENE	0.3	0.0	0.2	0.32	0.00	0.39	4	0	2	2	0	1
NPRBENZENE	0.2	0.0	0.2	0.21	0.00	0.39	2	0	2	1	0	1
1M3ETBENZ	1.1	0.0	0.4	1.17	0.00	0.78	13	0	4	8	0	2
135MEBENZ	0.4	0.0	0.2	0.42	0.00	0.39	5	0	2	3	0	1
1M2ETBENZ	0.4	0.0	0.4	0.42	0.00	0.78	5	0	4	3	0	2
124MBENZ	1.3	0.0	0.5	1.38	0.00	0.98	16	0	5	10	0	3
SBUBENZENE	0.1	0.0	0.4	0.11	0.00	0.78	1	0	4	1	0	2
N DECANE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.3	0.0	0.2	0.32	0.00	0.39	4	0	2	2	0	1
INDANE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.2	0.0	0.0	0.21	0.00	0.00	2	0	0	2	0	0
1M3PRBENZ	0.2	0.0	0.0	0.21	0.00	0.00	2	0	0	2	0	0
UNKNOWNS	4.8	0.2	4.3	5.08	1.65	8.41	58	3	42	36	2	26

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60911
DATE RUN: 06 26 78 AIR CONDITIONER USED
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673

DRIVER: SWARTZLANDER FUEL: SUMMER

TEST TEMPERATURE = 90

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	125.8	13.6	29.8
GC PPMC	109.8	12.4	27.0

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	9.6	6.6	10.7	8.74	53.23	39.63	137	104	134	85	65	83
SATURATES	49.2	4.0	10.9	44.81	32.26	40.37	630	56	123	391	35	76
OLEFINS	13.3	0.6	2.1	12.11	4.84	7.78	166	8	23	103	5	14
ACETYLENE	1.8	0.0	0.0	1.64	0.00	0.00	21	0	0	13	0	0
NAPTHENES	2.0	0.1	0.4	1.82	0.81	1.48	25	1	4	16	1	3
AROMATICS	29.5	0.5	2.6	26.87	4.03	9.63	346	6	27	215	4	17
BENZENE	3.0	0.2	1.2	2.73	1.61	4.44	35	3	12	22	2	8
TOLUENE	10.6	0.3	0.9	9.65	2.42	3.33	124	4	9	77	2	6
C8+AROM	15.9	0.0	0.5	14.48	0.00	1.85	190	0	5	118	0	3
UNKNOWN	4.4	0.6	0.3	0.00	0.00	0.00	53	8	3	33	6	2
INDIVIDUAL COMPONENTS												
METHANE	9.6	6.6	10.7	8.74	53.23	39.63	137	104	134	85	65	83
ETHYLENE	6.6	0.4	1.6	6.01	3.23	5.93	83	6	18	51	3	11
ETHANE	1.3	0.6	1.0	1.18	4.84	3.70	17	9	12	11	5	7
ACETYLENE	1.8	0.0	0.0	1.64	0.00	0.00	21	0	0	13	0	0
C3 + C3=	3.0	0.0	0.3	2.73	0.00	1.11	38	0	3	23	0	2
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.3	0.0	0.2	0.27	0.00	0.74	4	0	2	2	0	1
B1 + IB	1.4	0.0	0.1	1.28	0.00	0.37	18	0	1	11	0	1
NC4 +B=1=3	3.6	0.6	1.6	3.28	4.84	5.93	47	9	18	29	5	11
TBUTENE-2	0.2	0.0	0.0	0.18	0.00	0.00	3	0	0	2	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	3.5	0.7	1.5	3.19	5.65	5.56	45	10	17	28	6	11
PENTENE-1	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
NPENTANE	0.7	0.1	0.3	0.64	0.81	1.11	9	1	3	6	1	2
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60911
DATE RUN: 06 26 78 AIR CONDITIONER USED
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.2	0.0	0.0	0.18	0.00	0.00	3	0	0	2	0	0
CISPENT-2	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.6	0.2	0.1	0.55	1.61	0.37	8	3	1	5	2	1
22MBUTANE	0.1	0.0	0.2	0.09	0.00	0.74	1	0	2	1	0	1
CYPENTENE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.1	0.09	0.00	0.37	1	0	1	1	0	1
23MBUTANE	0.8	0.1	0.3	0.73	0.81	1.11	10	1	3	6	1	2
2MPENTANE	2.4	0.2	0.5	2.19	1.61	1.85	31	3	6	19	2	3
3MPENTANE	1.1	0.2	0.3	1.00	1.61	1.11	14	3	3	9	2	2
HEXENE-1	0.2	0.0	0.0	0.18	0.00	0.00	3	0	0	2	0	0
N HEXANE	0.6	0.1	0.2	0.55	0.81	0.74	8	1	2	5	1	1
TC6=3,=2	0.4	0.0	0.0	0.36	0.00	0.00	5	0	0	3	0	0
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
MCYP43M2C5	1.0	0.1	0.2	0.91	0.81	0.74	13	1	2	8	1	1
24MPENTANE	2.2	0.1	0.4	2.00	0.81	1.48	28	1	4	17	1	3
BENZENE	3.0	0.2	1.2	2.73	1.61	4.44	35	3	12	22	2	8
CYHEXANE	0.2	0.0	0.0	0.18	0.00	0.00	3	0	0	2	0	0
2MC6+23MC5	5.2	0.3	0.8	4.74	2.42	2.96	66	4	9	41	3	6
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.7	0.1	0.3	1.55	0.81	1.11	22	1	3	13	1	2
224MPENTAN	11.2	0.7	1.8	10.20	5.65	6.67	143	10	20	89	6	13
NHEPTANE	1.6	0.0	0.2	1.46	0.00	0.74	20	0	2	13	0	1
MCYHEXANE	0.4	0.0	0.1	0.36	0.00	0.37	5	0	1	3	0	1
25MHEXANE	1.0	0.0	0.1	0.91	0.00	0.37	13	0	1	8	0	1
24MC6+233M	1.4	0.1	0.2	1.28	0.81	0.74	18	1	2	11	1	1
234MC5	2.7	0.1	0.3	2.46	0.81	1.11	34	1	3	21	1	2
TOLUENE	10.6	0.3	0.9	9.65	2.42	3.33	124	4	9	77	2	6
23MC6+4MC7	1.3	0.0	0.1	1.18	0.00	0.37	17	0	1	10	0	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60911
DATE RUN: 06 26 78 AIR CONDITIONER USED
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.6	0.0	0.1	1.46	0.00	0.37	20	0	1	13	0	1
3MHEPTANE	1.4	0.0	0.1	1.28	0.00	0.37	18	0	1	11	0	1
255MC6	1.3	0.0	0.1	1.18	0.00	0.37	17	0	1	10	0	1
N OCTANE	0.8	0.0	0.1	0.73	0.00	0.37	10	0	1	6	0	1
223MC6	0.2	0.0	0.1	0.18	0.00	0.37	3	0	1	2	0	1
ETCYHEXANE	0.3	0.0	0.0	0.27	0.00	0.00	4	0	0	2	0	0
ET BENZENE	1.5	0.0	0.1	1.37	0.00	0.37	18	0	1	11	0	1
M+PXYLENE	5.9	0.6	0.3	5.37	0.00	1.11	70	0	3	43	0	2
2+4MC6	0.8	0.0	0.1	0.73	0.00	0.37	10	0	1	6	0	1
O XYLENE	2.3	0.0	0.1	2.09	0.00	0.37	27	0	1	17	0	1
N NONANE	0.4	0.0	0.0	0.36	0.00	0.00	5	0	0	3	0	0
IPRBENZENE	0.4	0.0	0.0	0.36	0.00	0.00	5	0	0	3	0	0
NPRBENZENE	0.3	0.0	0.0	0.27	0.00	0.00	4	0	0	2	0	0
1M3ETBENZ	1.6	0.0	0.0	1.46	0.00	0.00	19	0	0	12	0	0
135MEBENZ	0.6	0.0	0.0	0.55	0.00	0.00	7	0	0	4	0	0
1M2ETBENZ	0.4	0.0	0.0	0.36	0.00	0.00	5	0	0	3	0	0
124MBENZ	1.8	0.0	0.0	1.64	0.00	0.00	21	0	0	13	0	0
SBUBENZENE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.4	0.0	0.0	0.36	0.00	0.00	5	0	0	3	0	0
INDANE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.2	0.0	0.0	0.18	0.00	0.00	2	0	0	1	0	0
1M3PRBENZ	0.3	0.0	0.0	0.27	0.00	0.00	4	0	0	2	0	0
UNKNOWNS	4.4	0.6	0.3	4.01	4.84	1.11	53	8	3	33	5	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60912
DATE RUN: 07 13 78 AIR CONDITIONER USED
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVEN: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION BAG1 BAG2 BAG3
FID PPMC 119.0 14.6 23.0
GC PPMC 94.1 12.5 18.6

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
				MAJOR COMPONENTS								
METHANE	9.2	5.1	7.5	9.78	40.80	40.32	145	43	91	90	26	57
SATURATES	38.9	5.0	6.4	41.34	40.00	34.41	548	37	70	341	23	43
OLEFINS	16.2	0.8	2.1	17.22	6.40	11.29	223	6	22	139	4	14
ACETYLENE	1.3	0.0	0.0	1.38	0.00	0.00	17	0	0	10	0	0
NAPTHLENES	1.8	0.1	0.1	1.91	0.80	0.54	25	1	1	15	0	1
AROMATICS	21.9	0.6	1.4	23.27	4.80	7.53	283	4	14	176	3	9
BENZENE	3.5	0.3	0.5	3.72	2.40	2.69	45	2	5	28	1	3
TOLUENE	8.0	0.2	0.6	8.50	1.60	3.23	103	1	6	64	1	4
C8+AROM	10.4	0.1	0.3	11.05	0.80	1.61	137	1	3	85	0	2
UNKNOWN	4.8	0.9	1.1	0.00	0.00	0.00	63	6	11	39	4	7
				INDIVIDUAL COMPONENTS								
METHANE	9.2	5.1	7.5	9.78	40.80	40.32	145	43	91	90	26	57
ETHYLENE	6.8	0.5	1.3	7.23	4.00	6.99	94	4	14	58	2	9
ETHANE	1.2	0.6	0.8	1.28	4.80	4.30	18	5	9	11	3	6
ACETYLENE	1.3	0.0	0.0	1.38	0.00	0.00	17	0	0	10	0	0
C3 + C3=	3.4	0.3	0.7	3.61	2.40	3.76	47	2	7	29	1	5
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.6	0.1	0.3	0.64	0.80	1.61	9	1	3	5	0	2
B1 + IB	1.3	0.0	0.0	1.38	0.00	0.00	18	0	0	11	0	0
NC4 +B=1=3	2.6	0.6	0.8	2.76	4.80	4.30	37	5	9	23	3	5
TBUTENE-2	0.5	0.0	0.0	0.53	0.00	0.00	7	0	0	4	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.6	0.0	0.0	0.64	0.00	0.00	8	0	0	5	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.0	0.21	0.00	0.00	3	0	0	2	0	0
ISOPENTANE	2.3	0.5	0.9	2.44	4.00	4.84	33	4	10	20	2	6
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	0.6	0.1	0.2	0.85	0.80	1.08	11	1	2	7	0	1
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60912
DATE RUN: 07 13 78 AIR CONDITIONER USED
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35LAS223673 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.4	0.0	0.0	0.43	0.00	0.00	6	0	0	3	0	0
CISPENT-2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-2	0.7	0.0	0.1	0.74	0.00	0.54	10	0	1	6	0	1
22MBUTANE	0.3	0.0	0.0	0.32	0.00	0.00	4	0	0	3	0	0
CYPENTENE	0.2	0.0	0.0	0.21	0.00	0.00	3	0	0	2	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.2	0.0	0.0	0.21	0.00	0.00	3	0	0	2	0	0
23MBUTANE	0.7	0.4	0.2	0.74	3.20	1.08	10	3	2	6	2	1
2MPENTANL	1.2	0.4	0.4	1.28	3.20	2.15	17	3	4	11	2	3
3MPENTANE	1.1	0.3	0.3	1.17	2.40	1.61	16	2	3	10	1	2
MEXENE-1	0.5	0.0	0.0	0.53	0.00	0.00	7	0	0	4	0	0
N MEXANE	0.0	0.1	0.2	0.00	0.80	1.08	0	1	2	0	0	1
TC6=3,=2	1.5	0.0	0.0	1.59	0.00	0.00	21	0	0	13	0	0
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
MCYP43M2C5	0.9	0.1	0.1	0.96	0.80	0.54	12	1	1	8	0	1
24MPENTANE	1.9	0.2	0.3	2.02	1.60	1.61	27	1	3	17	1	2
BENZENE	3.5	0.3	0.5	3.72	2.40	2.69	45	2	5	28	1	3
CYHEXANE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
2MC6+23MC5	4.0	0.3	0.4	4.25	2.40	2.15	56	2	4	35	1	3
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.4	0.2	0.2	1.49	1.60	1.08	20	1	2	12	1	1
224MPENTAN	8.7	0.8	0.8	9.25	6.40	4.30	122	6	9	76	4	5
MHEPTANE	1.6	0.1	0.1	1.70	0.80	0.54	22	1	1	14	0	1
MCYHEXANE	0.3	0.0	0.0	0.32	0.00	0.00	4	0	0	3	0	0
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.9	0.1	0.1	2.02	0.80	0.54	27	1	1	17	0	1
234MC5	1.9	0.1	0.1	2.02	0.80	0.54	27	1	1	17	0	1
TOLUENE	8.0	0.2	0.6	8.50	1.60	3.23	103	1	6	64	1	4
23MC6+4MC7	1.1	0.0	0.1	1.17	0.00	0.54	15	0	1	10	0	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60912
DATE RUN: 07 13 78 AIR CONDITIONER USED
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.3	0.0	0.1	1.38	0.00	0.54	18	0	1	11	0	1
3MHEPTANE	1.2	0.0	0.1	1.28	0.00	0.54	17	0	1	10	0	1
255MC6	1.2	0.1	0.0	1.28	0.80	0.00	17	1	0	10	0	0
N UCTANE	0.7	0.0	0.0	0.74	0.00	0.00	10	0	0	6	0	0
223MC6	0.2	0.0	0.0	0.21	0.00	0.00	3	0	0	2	0	0
ETCYHEXANE	0.3	0.0	0.0	0.32	0.00	0.00	4	0	0	3	0	0
ET BENZENE	1.0	0.0	0.0	1.06	0.00	0.00	13	0	0	8	0	0
M+PXYLENE	3.8	0.1	0.2	4.04	0.80	1.08	50	1	2	31	0	1
2+4MC8	0.6	0.0	0.0	0.64	0.00	0.00	8	0	0	5	0	0
O XYLENE	1.6	0.0	0.1	1.70	0.00	0.54	21	0	1	13	0	1
N NONANE	0.4	0.0	0.0	0.43	0.00	0.00	6	0	0	3	0	0
IPRBENZENE	0.3	0.0	0.0	0.32	0.00	0.00	4	0	0	2	0	0
NPRBENZENE	0.2	0.0	0.0	0.21	0.00	0.00	3	0	0	2	0	0
1M3ETBENZ	0.9	0.0	0.0	0.96	0.00	0.00	12	0	0	7	0	0
135MEBENZ	0.4	0.0	0.0	0.43	0.00	0.00	5	0	0	3	0	0
1M2ETBENZ	0.4	0.0	0.0	0.43	0.00	0.00	5	0	0	3	0	0
124MBENZ	1.0	0.0	0.0	1.06	0.00	0.00	13	0	0	8	0	0
SBUBENZENE	0.2	0.0	0.0	0.21	0.00	0.00	3	0	0	2	0	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.2	0.0	0.0	0.21	0.00	0.00	3	0	0	2	0	0
INDANE	0.2	0.0	0.0	0.21	0.00	0.00	3	0	0	2	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
UNKNOWNS	4.8	0.9	1.1	5.10	7.20	5.91	63	6	11	39	4	7

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 61101
DATE RUN: 06 27 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: SWARTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	197.2	21.0	39.6
GC PPMC	173.5	19.2	39.0

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	14.0	7.2	12.3	8.07	37.50	31.54	203	123	141	126	76	88
SATURATES	87.8	9.4	18.6	50.61	48.96	47.69	1140	143	191	709	89	119
OLEFINS	15.5	0.5	2.3	8.93	2.60	5.90	197	7	23	122	5	14
ACETYLENE	2.2	0.0	0.0	1.27	0.00	0.00	26	0	0	16	0	0
NAPTHENES	3.4	0.3	0.8	1.96	1.56	2.05	43	4	8	27	3	5
AROMATICS	42.5	1.1	3.6	24.50	5.73	9.74	506	15	36	315	10	22
BENZENE	4.2	0.3	1.3	2.42	1.56	3.33	49	4	12	31	3	8
TOLUENE	15.8	0.7	1.4	9.11	3.65	3.59	188	10	13	117	6	8
C8+AROM	22.5	0.1	1.1	12.97	0.52	2.82	272	1	11	169	1	7
UNKNOWN	8.1	0.7	1.2	0.00	0.00	0.00	98	10	12	61	6	7
INDIVIDUAL COMPONENTS												
METHANE	14.0	7.2	12.3	8.07	37.50	31.54	203	123	141	126	76	88
ETHYLENE	5.3	0.4	1.6	3.05	2.08	4.10	67	6	16	42	4	10
ETHANE	1.1	0.8	1.3	0.63	4.17	3.33	15	13	14	9	8	9
ACETYLENE	2.2	0.0	0.0	1.27	0.00	0.00	26	0	0	16	0	0
C3 + C3=	3.4	0.1	0.3	1.96	0.52	0.77	43	1	3	27	1	2
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.8	0.1	0.3	0.46	0.52	0.77	11	2	3	7	1	2
B1 + IB	1.8	0.0	0.1	1.04	0.00	0.26	23	0	1	14	0	1
NC4 +B=1=3	8.2	1.5	2.9	4.73	7.81	7.44	108	23	30	67	14	19
TBUTENE-2	0.3	0.0	0.0	0.17	0.00	0.00	4	0	0	2	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.0	0.12	0.00	0.00	3	0	0	2	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	8.0	1.4	2.4	4.61	7.29	6.15	104	21	25	65	13	15
PENTENE-1	0.2	0.0	0.0	0.12	0.00	0.00	3	0	0	2	0	0
2MBUT-1	0.4	0.0	0.0	0.23	0.00	0.00	5	0	0	3	0	0
NPENTANE	1.5	0.4	0.5	0.86	2.08	1.28	20	6	5	12	4	3
2MB=1=3	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 61101
DATE RUN: 06 27 76
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35LH522J673 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CANBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.6	0.0	0.0	0.35	0.00	0.00	8	0	0	5	0	0
CISPENT-2	0.2	0.0	0.0	0.12	0.00	0.00	3	0	0	2	0	0
2MBUT-2	1.3	0.0	0.1	0.75	0.00	0.26	16	0	1	10	0	1
22MBUTANE	0.1	0.0	0.1	0.06	0.00	0.26	1	0	1	1	0	1
CYPENTENE	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.1	0.0	0.2	0.06	0.00	0.51	1	0	2	1	0	1
CYPENTANE	0.2	0.0	0.4	0.12	0.00	1.03	3	0	4	2	0	2
23MBUTANE	2.4	0.3	0.7	1.38	1.56	1.79	31	5	7	19	3	4
2MPENTANE	3.6	0.5	1.0	2.07	2.60	2.56	47	8	10	29	5	6
3MPENTANE	2.1	0.3	0.5	1.21	1.56	1.28	27	5	5	17	3	3
HEXENE-1	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
N HEXANE	1.5	0.2	0.4	0.86	1.04	1.03	19	3	4	12	2	3
TC6=3=2	0.8	0.0	0.0	0.46	0.00	0.00	10	0	0	6	0	0
CC6=3	0.2	0.0	0.0	0.12	0.00	0.00	3	0	0	2	0	0
2MPENTENE2	0.3	0.0	0.0	0.17	0.00	0.00	4	0	0	2	0	0
MCYP43M2C5	1.7	0.2	0.3	0.98	1.04	0.77	22	3	3	13	2	2
24MPENTANE	3.9	0.3	0.6	2.25	1.56	1.54	50	5	6	31	3	4
BENZENE	4.2	0.3	1.3	2.42	1.56	3.33	49	4	12	31	3	8
CYHEXANE	0.2	0.0	0.0	0.12	0.00	0.00	3	0	0	2	0	0
2MC6+23MC5	8.9	0.7	1.4	5.13	3.65	3.59	115	11	14	72	7	9
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.0	0.2	0.5	1.73	1.04	1.28	39	3	5	24	2	3
224MPENTAN	19.0	1.7	3.2	10.95	8.85	8.21	245	26	33	152	16	20
NHEPTANE	2.9	0.1	0.3	1.67	0.52	0.77	36	2	3	23	1	2
MCYHEXANE	0.8	0.1	0.1	0.46	0.52	0.26	10	1	1	6	1	1
25MHEXANE	1.9	0.1	0.2	1.10	0.52	0.51	25	2	2	15	1	1
24MC6+233M	2.1	0.1	0.3	1.21	0.52	0.77	27	2	3	17	1	2
234MC5	4.7	0.2	0.5	2.71	1.04	1.28	61	3	5	38	2	3
TOLUENE	15.8	0.7	1.4	9.11	3.65	3.59	188	10	13	117	6	8
23MC6+4MC7	2.0	0.1	0.2	1.15	0.52	0.51	26	2	2	16	1	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO: 61101
DATE RUN: 06 27 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.6	0.1	0.2	1.50	0.52	0.51	34	2	2	21	1	1
3MHEPTANE	2.2	0.1	0.2	1.27	0.52	0.51	28	2	2	18	1	1
255MC6	2.0	0.1	0.2	1.15	0.52	0.51	26	2	2	16	1	1
N OCTANE	1.4	0.1	0.1	0.81	0.52	0.26	18	2	1	11	1	1
223MC6	0.3	0.0	0.5	0.17	0.00	1.28	4	0	5	2	0	3
ETCYHEXANE	0.5	0.0	0.0	0.29	0.00	0.00	6	0	0	4	0	0
ET BENZENE	1.9	0.0	0.1	1.10	0.00	0.26	23	0	1	14	0	1
M+PXYLENE	7.9	0.1	0.3	4.55	0.52	0.77	95	1	3	59	1	2
2+4MC8	0.9	0.0	0.1	0.52	0.00	0.26	12	0	1	7	0	1
O XYLENE	3.2	0.0	0.1	1.84	0.00	0.26	38	0	1	24	0	1
N NONANE	0.6	0.0	0.0	0.35	0.00	0.00	8	0	0	5	0	0
IPRBENZENE	0.7	0.0	0.1	0.40	0.00	0.26	6	0	1	5	0	1
NPRBENZENE	0.6	0.0	0.0	0.35	0.00	0.00	7	0	0	5	0	0
1M3ETBENZ	2.3	0.0	0.1	1.33	0.00	0.26	28	0	1	17	0	1
135MEBENZ	0.9	0.0	0.0	0.52	0.00	0.00	11	0	0	7	0	0
1M2ETBENZ	0.9	0.0	0.1	0.52	0.00	0.26	11	0	1	7	0	1
124MBENZ	2.5	0.0	0.3	1.44	0.00	0.77	30	0	3	19	0	2
SBUBENZENE	0.2	0.0	0.0	0.12	0.00	0.00	2	0	0	2	0	0
N DECANE	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.4	0.0	0.0	0.23	0.00	0.00	5	0	0	3	0	0
INDANE	0.2	0.0	0.0	0.12	0.00	0.00	2	0	0	1	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.4	0.0	0.0	0.23	0.00	0.00	5	0	0	3	0	0
1M3PRBENZ	0.4	0.0	0.0	0.23	0.00	0.00	5	0	0	3	0	0
UNKNOWNS	8.1	0.7	1.2	4.67	3.65	3.08	98	10	12	61	6	7

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 61102
DATE RUN: 06 30 76
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: SWARTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	118.6	19.3	49.6
GC PPMC	93.5	13.1	36.1

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	10.0	6.1	12.4	10.70	46.56	34.35	153	128	197	95	80	122
SATURATES	41.6	5.7	15.9	44.49	43.51	44.04	570	107	226	354	67	140
OLEFINS	14.9	0.9	2.9	15.94	6.87	8.03	199	17	40	124	10	25
ACETYLENE	1.6	0.0	0.2	1.71	0.00	0.55	20	0	3	12	0	2
NAPTHENES	1.5	0.1	0.3	1.60	0.76	0.83	20	2	4	12	1	3
AROMATICS	21.1	0.2	3.7	22.57	1.53	10.25	265	3	48	165	2	30
BENZENE	2.8	0.1	1.6	2.99	0.76	4.43	35	2	21	22	1	13
TOLUENE	7.9	0.1	1.2	8.45	0.76	3.32	99	2	16	62	1	10
C8+AROM	10.4	0.0	0.9	11.12	0.00	2.49	133	0	12	83	0	7
UNKNOWN	2.8	0.1	0.7	0.00	0.00	0.00	36	2	9	22	1	6
INDIVIDUAL COMPONENTS												
METHANE	10.0	6.1	12.4	10.70	46.56	34.35	153	128	197	95	80	122
ETHYLENE	8.0	0.5	2.2	8.56	3.82	6.09	107	9	31	67	6	19
ETHANE	1.4	0.7	1.2	1.50	5.34	3.32	20	14	18	12	9	11
ACETYLENE	1.6	0.0	0.2	1.71	0.00	0.55	20	0	3	12	0	2
C3 + C3=	3.2	0.0	0.4	3.42	0.00	1.11	43	0	6	27	0	3
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.3	0.1	0.3	0.32	0.76	0.83	4	2	4	3	1	3
B1 + IB	1.7	0.0	0.1	1.82	0.00	0.28	23	0	1	14	0	1
NC4 +B=1=3	3.6	1.0	2.4	3.85	7.63	6.65	50	19	34	31	12	21
TBUTENE-2	0.3	0.0	0.0	0.32	0.00	0.00	4	0	0	2	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	3.3	0.8	2.2	3.53	6.11	6.09	45	15	31	28	9	20
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
NPENTANE	0.6	0.1	0.3	0.64	0.76	0.83	8	2	4	5	1	3
2MB=1=3	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 61102
DATE RUN: 06 30 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L85223673 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.2	0.0	0.0	0.21	0.00	0.00	3	0	0	2	0	0
CISPENT-2	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.5	0.4	0.2	0.53	3.05	0.55	7	7	3	4	5	2
22MBUTANL	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
CYPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MPENTENE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	0.7	0.2	0.4	0.75	1.53	1.11	10	4	6	6	2	4
2MPLNTANE	2.3	0.3	0.6	2.46	2.29	1.66	32	6	9	20	4	5
3MPENTANE	0.8	0.1	0.4	0.86	0.76	1.11	11	2	6	7	1	4
MEXENE-1	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
N HEXANE	0.5	0.1	0.2	0.53	0.76	0.55	7	2	3	4	1	2
TC6=3,=2	0.2	0.0	0.0	0.21	0.00	0.00	3	0	0	2	0	0
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
MCYP43M2C5	0.7	0.1	0.2	0.75	0.76	0.55	9	2	3	6	1	2
24MPENTANE	1.7	0.2	0.6	1.82	1.53	1.66	23	4	8	14	2	5
BENZENE	2.8	0.1	1.6	2.99	0.76	4.43	35	2	21	22	1	13
CYHEXANE	0.2	0.0	0.0	0.21	0.00	0.00	3	0	0	2	0	0
2MC6+23MC5	4.0	0.4	1.3	4.28	3.05	3.60	55	8	18	34	5	11
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.3	0.1	0.4	1.39	0.76	1.11	18	2	6	11	1	4
224MPENTAN	9.4	1.1	3.3	10.05	8.40	9.14	128	21	47	80	13	29
MHEPTANE	1.1	0.1	0.2	1.18	0.76	0.55	15	2	3	9	1	2
MCYHEXANE	0.3	0.0	0.0	0.32	0.00	0.00	4	0	0	2	0	0
25MHEXANE	0.8	0.0	0.0	0.86	0.00	0.00	11	0	0	7	0	0
24MC6+233M	1.2	0.1	0.5	1.28	0.76	1.39	16	2	7	10	1	4
234MC5	2.3	0.1	0.5	2.46	0.76	1.39	31	2	7	19	1	4
TOLUENE	7.9	0.1	1.2	8.45	0.76	3.32	99	2	16	62	1	10
23MC6+4MC7	1.1	0.0	0.2	1.18	0.00	0.55	15	0	3	9	0	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 61102
DATE RUN: 06 30 78
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35LBS223673 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.3	0.1	0.2	1.39	0.76	0.55	18	2	3	11	1	2
3MHEPTANE	1.1	0.0	0.2	1.18	0.00	0.55	15	0	3	9	0	2
255MC6	1.0	0.1	0.2	1.07	0.76	0.55	14	2	3	8	1	2
N OCTANE	0.7	0.0	0.1	0.75	0.00	0.28	10	0	1	6	0	1
223MC6	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.3	0.0	0.1	0.32	0.00	0.28	4	0	1	2	0	1
ET BENZENE	1.1	0.0	0.1	1.18	0.00	0.28	14	0	1	9	0	1
M+PXYLENE	4.0	0.0	0.3	4.28	0.00	0.83	51	0	4	31	0	2
2+4MC8	0.6	0.0	0.1	0.64	0.00	0.28	8	0	1	5	0	1
O XYLENE	1.7	0.0	0.1	1.82	0.00	0.28	22	0	1	13	0	1
N NONANE	0.3	0.0	0.1	0.32	0.00	0.28	4	0	1	3	0	1
IPRBENZENE	0.3	0.0	0.1	0.32	0.00	0.28	4	0	1	2	0	1
NPRBENZENE	0.2	0.0	0.0	0.21	0.00	0.00	3	0	0	2	0	0
1M3ETBENZ	0.9	0.0	0.1	0.96	0.00	0.28	11	0	1	7	0	1
135MBENZ	0.4	0.0	0.0	0.43	0.00	0.00	5	0	0	3	0	0
1M2ETBENZ	0.4	0.0	0.1	0.43	0.00	0.28	5	0	1	3	0	1
124MBENZ	0.9	0.0	0.1	0.96	0.00	0.28	11	0	1	7	0	1
SBUBENZENE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
INDANE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
UNKNOWNS	2.8	0.1	0.7	2.99	0.76	1.94	36	2	9	22	1	6

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 61111
DATE RUN: 06 26 78 AIR CONDITIONER USED
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L6S223673 DRIVER: SWARTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	143.3	27.3	40.8
GC PPMC	109.9	21.2	42.1

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	14.7	10.6	13.5	13.38	50.00	32.07	232	161	141	144	100	88
SATURATES	37.0	5.5	17.5	33.67	25.94	41.57	522	75	164	324	46	102
OLEFINS	24.5	2.8	4.3	22.29	13.21	10.21	337	37	39	210	23	24
ACETYLENE	2.8	0.0	0.0	2.55	0.00	0.00	36	0	0	22	0	0
NAPTHENES	2.4	0.2	0.5	2.18	0.94	1.19	33	3	5	21	2	3
AROMATICS	25.5	1.9	5.6	23.20	8.96	13.30	330	24	48	205	15	30
BENZENE	5.1	1.4	2.9	4.64	6.60	6.89	65	17	25	41	11	15
TOLUENE	9.0	0.4	1.6	8.19	1.89	3.80	116	5	14	72	3	9
C8+AROM	11.4	0.1	1.1	10.37	0.47	2.61	150	1	10	93	1	6
UNKNOWN	3.0	0.2	0.7	0.00	0.00	0.00	40	3	6	25	2	4
INDIVIDUAL COMPONENTS												
METHANE	14.7	10.6	13.5	13.36	50.00	32.07	232	161	141	144	100	88
ETHYLENE	11.7	1.6	3.1	10.65	7.55	7.36	161	21	28	100	13	18
ETHANE	1.0	0.4	0.9	0.91	1.89	2.14	15	6	9	9	4	5
ACETYLENE	2.8	0.0	0.0	2.55	0.00	0.00	36	0	0	22	0	0
C3 + C3=	4.9	0.3	0.5	4.46	1.42	1.19	67	4	5	42	2	3
C=C=C	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.3	0.1	0.2	0.27	0.47	0.48	4	1	2	3	1	1
B1 + 1B	2.6	0.1	0.2	2.37	0.47	0.48	36	1	2	22	1	1
NC4 +B=1=3	3.3	0.6	2.0	3.00	2.83	4.75	47	8	19	29	5	12
TBUTENE-2	0.5	0.0	0.0	0.45	0.00	0.00	7	0	0	4	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.0	0.18	0.00	0.00	3	0	0	2	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	2.7	0.6	1.9	2.46	2.83	4.51	38	8	18	24	5	11
PENTENE-1	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.2	0.0	0.0	0.18	0.00	0.00	3	0	0	2	0	0
NPENTANE	0.5	0.1	0.3	0.45	0.47	0.71	7	1	3	4	1	2
2MB=1=3	0.2	0.0	0.0	0.18	0.00	0.00	3	0	0	2	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 61111
DATE RUN: 06 28 78 AIR CONDITIONER USED
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.3	0.0	0.1	0.27	0.00	0.24	4	0	1	3	0	1
CISPENT-2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-2	2.8	0.8	0.4	2.55	3.77	0.95	39	11	4	24	7	2
22MBUTANE	0.0	0.7	1.1	0.00	3.30	2.61	0	10	10	0	6	6
CYPLNTENE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
CYPENTANE	1.0	0.1	0.0	0.91	0.47	0.00	14	1	0	9	1	0
23MBUTANE	0.3	0.1	0.4	0.27	0.47	0.95	4	1	4	3	1	2
2MPENTANE	1.8	0.2	1.0	1.64	0.94	2.38	25	3	9	16	2	6
3MPENTANE	0.8	0.1	0.4	0.73	0.47	0.95	11	1	4	7	1	2
HEXENE-1	0.2	0.0	0.0	0.18	0.00	0.00	3	0	0	2	0	0
N HEXANE	0.5	0.1	0.2	0.45	0.47	0.48	7	1	2	4	1	1
TC6=3.=2	0.3	0.0	0.0	0.27	0.00	0.00	4	0	0	3	0	0
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
MCYP43M2C5	0.7	0.1	0.3	0.64	0.47	0.71	10	1	3	6	1	2
24MPENTANE	1.6	0.2	0.7	1.46	0.94	1.66	22	3	7	14	2	4
BENZENE	5.1	1.4	2.9	4.64	6.60	6.89	65	17	25	41	11	15
CYHEXANE	0.2	0.0	0.0	0.18	0.00	0.00	3	0	0	2	0	0
2MC6+23MC5	3.9	0.4	1.4	3.55	1.89	3.33	55	5	13	34	3	8
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.3	0.1	0.5	1.18	0.47	1.19	18	1	5	11	1	3
224MPENTAN	8.4	1.0	3.3	7.64	4.72	7.84	118	14	31	73	8	19
NHEPTANE	1.1	0.1	0.3	1.00	0.47	0.71	15	1	3	10	1	2
MCYHEXANE	0.3	0.0	0.1	0.27	0.00	0.24	4	0	1	3	0	1
25MHEXANE	0.7	0.0	0.2	0.64	0.00	0.48	10	0	2	6	0	1
24MC6+233M	1.1	0.1	0.4	1.00	0.47	0.95	15	1	4	10	1	2
234MC5	2.0	0.2	0.6	1.82	0.94	1.43	28	3	6	17	2	3
TOLUENE	9.0	0.4	1.6	8.19	1.89	3.88	116	5	14	72	3	9
23MC6+4MC7	1.0	0.1	0.3	0.91	0.47	0.71	14	1	3	9	1	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 61111
DATE RUN: 06 28 78 AIR CONDITIONER USED
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L8S223673 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	1.2	0.1	0.3	1.09	0.47	0.71	17	1	3	10	1	2
3MHEPTANE	1.1	0.1	0.3	1.00	0.47	0.71	15	1	3	10	1	2
255MC6	0.9	0.1	0.3	0.82	0.47	0.71	13	1	3	8	1	2
N OCTANE	0.6	0.0	0.2	0.55	0.00	0.48	8	0	2	5	0	1
223MC6	0.1	0.0	0.1	0.09	0.00	0.24	1	0	1	1	0	1
ETCYHEXANE	0.2	0.0	0.1	0.18	0.00	0.24	3	0	1	2	0	1
ET BENZENE	1.2	0.0	0.1	1.09	0.00	0.24	16	0	1	10	0	1
M+PXYLENE	4.4	0.1	0.5	4.00	0.47	1.19	57	1	4	36	1	3
2+4MC8	0.5	0.0	0.1	0.45	0.00	0.24	7	0	1	4	0	1
O XYLENE	2.0	0.0	0.2	1.82	0.00	0.48	26	0	2	16	0	1
N NONANE	0.3	0.0	0.1	0.27	0.00	0.24	4	0	1	3	0	1
IPRBENZENE	0.3	0.0	0.1	0.27	0.00	0.24	4	0	1	2	0	1
NPRBENZENE	0.2	0.0	0.0	0.18	0.00	0.00	3	0	0	2	0	0
1M3ETBENZ	1.0	0.0	0.0	0.91	0.00	0.00	13	0	0	8	0	0
135MEBENZ	0.4	0.0	0.1	0.36	0.00	0.24	5	0	1	3	0	1
1M2ETBENZ	0.3	0.0	0.0	0.27	0.00	0.00	4	0	0	2	0	0
124MBENZ	1.0	0.0	0.1	0.91	0.00	0.24	13	0	1	8	0	1
SBUBENZENE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.2	0.0	0.0	0.18	0.00	0.00	3	0	0	2	0	0
INDANE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
1M3PRBNZ	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
UNKNOWNS	3.0	0.2	0.7	2.73	0.94	1.66	48	3	6	25	2	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 61112
DATE RUN: 06 29 78 AIR CONDITIONER USED
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35L85223673 DRIVER: SWARTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	124.5	23.7	60.4
GC PPMC	97.5	17.6	47.3

COMPOUND NAME	PPMC BAG	1	2	3	% OF TOTAL CARBON BAG	1	2	3	MG/MILE BAG	1	2	3	MG/KM BAG	1	2	3
MAJOR COMPONENTS																
METHANE		12.5	9.2	19.0		12.82	52.27	40.17		190	145	271		118	90	169
SATURATES		37.5	4.6	14.8		38.46	27.27	31.29		511	68	189		317	42	118
OLEFINS		17.5	2.3	5.7		17.95	13.07	12.05		233	32	71		145	20	44
ACETYLENE		1.8	0.0	0.0		1.85	0.00	0.00		22	0	0		14	0	0
NAPTHENES		1.0	0.1	0.4		1.03	0.57	0.85		13	1	5		8	1	3
AROMATICS		23.6	0.9	6.5		24.21	5.11	13.74		295	12	76		183	7	47
BENZENE		3.1	0.6	3.5		3.18	3.41	7.40		38	8	41		24	5	25
TOLUENE		8.6	0.3	1.8		8.82	1.70	3.81		107	4	21		67	2	13
C8+AROM		11.9	0.0	1.2		12.21	0.00	2.54		151	0	14		94	0	9
UNKNOWN		3.6	0.3	0.9		0.00	0.00	0.00		46	4	11		28	2	7
INDIVIDUAL COMPONENTS																
METHANE		12.5	9.2	19.0		12.82	52.27	40.17		190	145	271		118	90	169
ETHYLENE		9.8	1.1	4.4		10.05	6.25	9.30		130	15	55		81	9	34
ETHANE		1.2	0.6	1.2		1.23	3.41	2.54		17	9	16		11	6	10
ACETYLENE		1.8	0.0	0.0		1.85	0.00	0.00		22	0	0		14	0	0
C3 + C3=		4.0	0.2	1.0		4.10	1.14	2.11		53	3	12		33	2	8
C=C=C		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
METHACETYL		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
ISOBUTANE		0.2	0.1	0.3		0.21	0.57	0.63		3	1	4		2	1	2
B1 + IB		2.0	0.0	0.2		2.05	0.00	0.42		27	0	2		17	0	2
NC4 +B=1=3		2.9	0.7	2.0		2.97	3.98	4.23		40	10	26		25	6	16
TBUTENE-2		0.3	0.0	0.0		0.31	0.00	0.00		4	0	0		2	0	0
22MPROPANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
CBUTENE-2		0.1	0.0	0.0		0.10	0.00	0.00		1	0	0		1	0	0
B=1=2		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
3MB1		0.1	0.0	0.0		0.10	0.00	0.00		1	0	0		1	0	0
ISOPENTANE		2.3	0.6	1.7		2.36	3.41	3.59		31	9	22		20	5	14
PENTENE-1		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
2MBUT-1		0.1	0.0	0.0		0.10	0.00	0.00		1	0	0		1	0	0
NPENTANE		0.5	0.1	0.3		0.51	0.57	0.63		7	1	4		4	1	2
2MB=1=3		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 61112
DATE RUN: 06 29 78 AIR CONDITIONER USED
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35LR5223673 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
TPENT=2	0.2	0.0	0.0	0.21	0.00	0.00	3	0	0	2	0	0
CISPENT-2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-2	0.4	0.8	0.1	0.41	4.55	0.21	5	11	1	3	7	1
22MBUTANE	0.3	0.0	0.1	0.31	0.00	0.21	4	0	1	3	0	1
CYPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MPENTENE	0.1	0.2	0.0	0.10	1.14	0.00	1	3	0	1	2	0
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	0.6	0.1	0.3	0.62	0.57	0.63	6	1	4	5	1	2
2MPENTANE	2.3	0.4	0.8	2.36	2.27	1.69	31	6	10	19	4	6
3MPENTANE	0.8	0.1	0.3	0.82	0.57	0.63	11	1	4	7	1	2
HEXENE-1	0.2	0.0	0.0	0.21	0.00	0.00	3	0	0	2	0	0
N HEXANE	0.4	0.1	0.2	0.41	0.57	0.42	5	1	3	3	1	2
TC6=3,=2	0.2	0.0	0.0	0.21	0.00	0.00	3	0	0	2	0	0
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	0.5	0.1	0.2	0.51	0.57	0.42	7	1	2	4	1	2
24MPENTANE	1.4	0.1	0.5	1.44	0.57	1.06	19	1	6	12	1	4
BENZENE	3.1	0.6	3.5	3.18	3.41	7.40	38	8	41	24	5	25
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	3.7	0.3	1.2	3.79	1.70	2.54	50	4	15	31	3	10
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.2	0.1	0.4	1.23	0.57	0.85	16	1	5	10	1	3
224MPENTAN	8.6	1.0	2.8	8.82	5.68	5.92	116	14	36	72	9	22
NHEPTANE	1.1	0.0	0.2	1.13	0.00	0.42	15	0	3	9	0	2
MCYHEXANE	0.3	0.0	0.1	0.31	0.00	0.21	4	0	1	2	0	1
25MHEXANE	0.7	0.0	0.0	0.72	0.00	0.00	9	0	0	6	0	0
24MC6+233M	1.2	0.1	0.5	1.23	0.57	1.06	16	1	6	10	1	4
234MC5	2.1	0.1	0.5	2.15	0.57	1.06	28	1	6	18	1	4
TOLUENE	8.6	0.3	1.8	8.82	1.70	3.81	107	4	21	67	2	13
23MC6+4MC7	1.1	0.1	0.3	1.13	0.57	0.63	15	1	4	9	1	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 61112
DATE RUN: 06 29 78 AIR CONDITIONER USED
CAR: 1978 CHEVROLET ST W-CALIF VIN: 1L35LH5223673 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.3	0.1	0.3	1.33	0.57	0.63	18	1	4	11	1	2
3MHEPTANE	1.1	0.0	0.3	1.13	0.00	0.63	15	0	4	9	0	2
255MC6	0.9	0.1	0.3	0.92	0.57	0.63	12	1	4	8	1	2
N OCTANE	0.6	0.0	0.1	0.62	0.00	0.21	8	0	1	5	0	1
223MC6	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.2	0.0	0.1	0.21	0.00	0.21	3	0	1	2	0	1
ET BENZENE	1.2	0.0	0.1	1.23	0.00	0.21	15	0	1	9	0	1
M+PXYLENE	4.6	0.0	0.6	4.72	0.00	1.27	58	0	7	36	0	4
2+4MC8	0.6	0.0	0.1	0.62	0.00	0.21	8	0	1	5	0	1
O XYLENE	2.0	0.0	0.2	2.05	0.00	0.42	25	0	2	16	0	1
N NONANE	0.3	0.0	0.1	0.31	0.00	0.21	4	0	1	3	0	1
IPRBENZENE	0.3	0.0	0.1	0.31	0.00	0.21	4	0	1	2	0	1
NPRBENZENE	0.2	0.0	0.0	0.21	0.00	0.00	3	0	0	2	0	0
1M3ETBENZ	1.1	0.0	0.1	1.13	0.00	0.21	14	0	1	9	0	1
135MEBENZ	0.4	0.0	0.0	0.41	0.00	0.00	5	0	0	3	0	0
1M2ETBENZ	0.4	0.0	0.0	0.41	0.00	0.00	5	0	0	3	0	0
124MBENZ	1.1	0.0	0.1	1.13	0.00	0.21	14	0	1	9	0	1
SBUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.2	0.0	0.0	0.21	0.00	0.00	3	0	0	2	0	0
INDANE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.2	0.0	0.0	0.21	0.00	0.00	3	0	0	2	0	0
UNKNOWNS	3.6	0.3	0.9	3.69	1.70	1.90	46	4	11	28	2	7

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70001
DATE RUN: 08 14 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8H11Y148568 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 0

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	1234.1	43.0	64.3
GC PPMC	1219.6	39.9	62.2

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	117.4	3.8	14.3	9.63	9.52	22.99	1498	68	174	931	42	108
SATURATES	575.0	11.5	32.6	47.15	28.82	52.41	6568	185	355	4082	115	221
OLEFINS	186.3	1.5	4.5	15.28	3.76	7.23	2078	24	48	1292	15	30
ACETYLENE	34.2	0.2	0.0	2.80	0.50	0.00	354	3	0	220	2	0
NAPTHENES	24.9	0.4	1.0	2.04	1.00	1.61	278	6	11	173	4	7
AROMATICS	212.5	4.1	4.4	17.42	10.28	7.07	2226	60	44	1384	38	27
BENZENE	31.0	0.5	1.0	2.54	1.25	1.61	321	7	10	199	5	6
TOLUENE	45.0	0.5	1.1	3.69	1.25	1.77	471	7	11	293	5	7
C8+ARUM	136.5	3.1	2.3	11.19	7.77	3.70	1453	46	23	903	29	15
UNKNOWN	69.3	18.4	5.4	0.00	0.00	0.00	740	276	55	460	171	34
INDIVIDUAL COMPONENTS												
METHANE	117.4	3.8	14.3	9.63	9.52	22.99	1498	68	174	931	42	108
ETHYLENE	74.6	0.6	2.8	6.12	1.50	4.50	832	9	30	517	6	19
ETHANE	7.3	0.4	1.9	0.60	1.00	3.05	87	7	22	54	4	13
ACETYLENE	34.2	0.2	0.0	2.80	0.50	0.00	354	3	0	220	2	0
C3 + C3=	26.7	0.6	0.4	2.19	1.50	0.64	298	9	4	185	6	3
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	7.7	0.3	0.9	0.63	0.75	1.45	89	5	10	55	3	6
B1 + IB	17.1	0.0	1.3	1.40	0.00	2.09	191	0	14	119	0	9
NC4 +B=1=3	54.7	1.3	4.0	4.49	3.26	6.43	632	21	44	393	13	27
TBUTENE-2	5.3	0.0	0.0	0.43	0.00	0.00	59	0	0	37	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	5.0	0.0	0.0	0.41	0.00	0.00	56	0	0	35	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	1.2	0.1	0.0	0.10	0.25	0.00	13	2	0	8	1	0
ISOPENTANE	60.8	1.4	4.5	4.99	3.51	7.23	698	23	49	434	14	31
PENTENE-1	0.3	0.0	0.0	0.02	0.00	0.00	3	0	0	2	0	0
2MBUT-1	10.4	0.0	0.0	0.85	0.00	0.00	116	0	0	72	0	0
NPENTANE	5.7	0.6	0.8	0.47	1.50	1.29	65	10	9	41	6	5
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70001
DATE RUN: 08 14 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	8.1	0.1	0.0	0.66	0.25	0.00	90	2	0	56	1	0
CISPENT-2	4.0	0.0	0.0	0.33	0.00	0.00	45	0	0	28	0	0
2MBUT-2	16.9	0.1	0.0	1.39	0.25	0.00	189	2	0	117	1	0
22MBUTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTENE	1.1	0.0	0.0	0.09	0.00	0.00	12	0	0	7	0	0
3MPLNTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	12.8	0.4	1.0	1.05	1.00	1.61	146	6	11	91	4	7
2MPENTANE	33.5	1.1	2.3	2.75	2.76	3.70	383	18	25	238	11	16
3MPENTANE	18.9	0.5	1.3	1.55	1.25	2.09	216	8	14	134	5	9
HEXENE-1	2.6	0.0	0.0	0.21	0.00	0.00	29	0	0	18	0	0
N HEXANE	8.2	0.2	0.4	0.67	0.50	0.64	94	3	4	58	2	3
TC6=3=2	8.6	0.0	0.0	0.71	0.00	0.00	98	0	0	60	0	0
CC6=3	0.3	0.0	0.0	0.02	0.00	0.00	3	0	0	2	0	0
2MPENTENE2	4.1	0.0	0.0	0.34	0.00	0.00	46	0	0	28	0	0
MCYP43M2C5	13.0	0.3	0.7	1.07	0.75	1.13	145	5	7	90	3	5
24MPENTANE	25.4	0.5	1.4	2.08	1.25	2.25	289	8	15	180	5	9
BENZENE	31.0	0.5	1.0	2.54	1.25	1.61	321	7	10	199	5	6
CYHEXANE	0.6	0.0	0.0	0.05	0.00	0.00	7	0	0	4	0	0
2MC6+23MC5	56.5	0.8	2.4	4.63	2.01	3.86	643	13	26	400	8	16
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	14.9	0.3	0.7	1.22	0.75	1.13	170	5	8	105	3	5
224MPENTAN	119.6	2.0	5.9	9.81	5.01	9.49	1358	32	64	844	20	40
NHEPTANE	16.1	0.2	0.3	1.32	0.50	0.48	183	3	3	114	2	2
MCYHEXANE	9.6	0.1	0.3	0.79	0.25	0.48	107	2	3	67	1	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	27.1	0.3	1.0	2.22	0.75	1.61	308	5	11	191	3	7
234MC5	37.3	0.4	1.3	3.06	1.00	2.09	424	6	14	263	4	9
TOLUENE	45.0	0.5	1.1	3.69	1.25	1.77	471	7	11	293	5	7
23MC6+4MC7	11.3	0.1	0.4	0.93	0.25	0.64	126	2	4	80	1	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70001
DATE RUN: 08 14 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	9.7	0.1	0.4	0.80	0.25	0.64	110	2	4	68	1	3
3MHEPTANE	10.6	0.1	0.4	0.87	0.25	0.64	120	2	4	75	1	3
255MC6	15.0	0.2	0.6	1.23	0.50	0.96	170	3	6	106	2	4
N OCTANE	8.4	0.1	0.2	0.69	0.25	0.32	95	2	2	59	1	1
223MC6	1.2	0.1	0.1	0.10	0.25	0.16	14	2	1	8	1	1
ETCYHEXANE	1.7	0.0	0.0	0.14	0.00	0.00	19	0	0	12	0	0
ET BENZENE	8.3	0.1	0.1	0.68	0.25	0.16	88	1	1	54	1	1
M+PXYLENE	28.4	0.4	0.4	2.33	1.00	0.64	300	6	4	186	4	3
2+4MC8	5.6	0.0	0.2	0.46	0.00	0.32	63	0	2	39	0	1
O XYLENE	15.4	0.2	0.3	1.26	0.50	0.48	163	3	3	101	2	2
N NONANE	6.7	0.1	0.2	0.55	0.25	0.32	76	2	2	47	1	1
IPRBENZENE	10.7	0.1	0.2	0.88	0.25	0.32	114	1	2	71	1	1
NPRBENZENE	0.9	0.1	0.0	0.07	0.25	0.00	10	1	0	6	1	0
IN3ETBENZ	11.9	0.3	0.2	0.98	0.75	0.32	126	4	2	79	3	1
135MEBENZ	4.9	0.0	0.0	0.40	0.00	0.00	52	0	0	32	0	0
IN2ETBENZ	12.6	0.3	0.4	1.03	0.75	0.64	134	4	4	83	3	3
124MBENZ	30.3	0.5	0.4	2.48	1.25	0.64	322	7	4	200	5	3
SBUBENZENE	2.6	0.3	0.3	0.21	0.75	0.48	28	4	3	17	3	2
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	2.6	0.2	0.0	0.21	0.50	0.00	28	3	0	17	2	0
INDANE	0.6	0.0	0.0	0.05	0.00	0.00	6	0	0	4	0	0
13DEBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	3.5	0.3	0.0	0.29	0.75	0.00	37	4	0	23	3	0
IN3PRBENZ	3.8	0.3	0.0	0.31	0.75	0.00	41	4	0	25	3	0
UNKNOWNS	69.3	18.4	5.4	5.68	46.12	8.68	740	276	55	460	171	34

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70002
DATE RUN: 08 15 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8N11Y148568 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 0

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	1250.5	96.1	66.3
GC PPMC	1324.7	96.6	69.2

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	120.6	15.2	14.9	9.10	15.74	21.53	1527	297	178	949	184	110
SATURATES	566.6	36.6	29.3	42.77	37.89	42.34	6424	640	313	3992	398	194
OLEFINS	215.2	16.5	6.3	16.25	17.08	9.10	2383	282	66	1481	175	41
ACETYLENE	51.8	0.0	0.0	3.91	0.00	0.00	532	0	0	331	0	0
NAPTHENES	28.7	1.8	1.1	2.17	1.86	1.59	318	31	11	198	19	7
AROMATICS	210.7	14.4	6.1	15.91	14.91	8.82	2191	231	60	1362	143	37
BENZENE	33.2	3.8	1.3	2.51	3.93	1.88	341	60	13	212	37	8
TOLUENE	49.2	3.6	1.7	3.71	3.73	2.46	512	58	17	318	36	10
C8+AROM	128.3	7.0	3.1	9.69	7.25	4.48	1356	114	31	843	71	19
UNKNOWN	131.1	12.1	11.5	0.00	0.00	0.00	1389	198	115	863	123	71
INDIVIDUAL COMPONENTS												
METHANE	120.6	15.2	14.9	9.10	15.74	21.53	1527	297	178	949	184	110
ETHYLENE	79.7	7.7	3.6	6.02	7.97	5.20	883	131	38	548	82	23
ETHANE	7.3	2.6	2.3	0.55	2.69	3.32	87	48	26	54	30	16
ACETYLENE	51.8	0.0	0.0	3.91	0.00	0.00	532	0	0	331	0	0
C3 + C3=	27.2	3.6	1.0	2.05	3.73	1.45	301	61	10	187	38	6
C=C=C	0.7	0.0	0.0	0.05	0.00	0.00	7	0	0	5	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	7.0	0.7	0.7	0.53	0.72	1.01	80	12	8	50	8	5
B1 + IB	18.1	1.8	0.4	1.37	1.86	0.58	200	31	4	125	19	3
NC4 +B=1=3	48.6	4.3	4.2	3.67	4.45	6.07	557	76	45	346	47	28
TBUTENE-2	6.5	0.6	0.3	0.49	0.62	0.43	72	10	3	45	6	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	6.4	0.6	0.2	0.48	0.62	0.29	71	10	2	44	6	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	1.6	0.1	0.0	0.12	0.10	0.00	18	2	0	11	1	0
ISOPENTANE	53.6	4.2	4.0	4.05	4.35	5.78	611	74	43	380	46	27
PENTENE-1	3.4	0.0	0.0	0.26	0.00	0.00	38	0	0	23	0	0
2MBUT-1	5.8	0.0	0.0	0.44	0.00	0.00	64	0	0	40	0	0
NPENTANE	9.0	1.0	0.7	0.68	1.04	1.01	103	18	8	64	11	5
2MB=1=3	2.3	0.0	0.0	0.17	0.00	0.00	25	0	0	15	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70002
DATE RUN: 08 15 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y14P568 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT-2	10.4	0.4	0.1	0.79	0.41	0.14	115	7	1	72	4	1
CISPENT-2	5.6	0.0	0.0	0.42	0.00	0.00	62	0	0	39	0	0
2MBUT-2	18.8	0.8	0.3	1.42	0.83	0.43	208	14	3	129	8	2
22MBUTANE	0.6	0.7	0.0	0.05	0.72	0.00	7	12	0	4	8	0
CYPENTENE	2.3	0.2	0.0	0.17	0.21	0.00	25	3	0	15	2	0
3MPENTENE	2.0	0.0	0.0	0.15	0.00	0.00	22	0	0	14	0	0
CYPENTANE	1.3	0.1	0.1	0.10	0.10	0.14	14	2	1	9	1	1
23MBUTANE	12.9	0.8	0.7	0.97	0.83	1.01	146	14	7	91	9	5
2MPENTANE	30.8	2.0	1.7	2.33	2.07	2.46	349	35	18	217	22	11
3MPENTANE	17.3	1.0	0.9	1.31	1.04	1.30	196	17	10	122	11	6
HEXENE-1	4.7	0.2	0.2	0.35	0.21	0.29	52	3	2	32	2	1
N HEXANE	7.0	0.4	0.3	0.53	0.41	0.43	79	7	3	49	4	2
TC6=3,=2	10.7	0.4	0.2	0.81	0.41	0.29	118	7	2	74	4	1
CC6=3	3.1	0.0	0.0	0.23	0.00	0.00	34	0	0	21	0	0
2MPENTENE2	5.9	0.1	0.0	0.45	0.10	0.00	65	2	0	41	1	0
MCYP43M2C5	13.0	0.8	0.5	0.98	0.83	0.72	144	14	5	89	8	3
24MPENTANE	28.3	1.5	1.1	2.14	1.55	1.59	320	26	12	199	16	7
BENZENE	33.2	3.8	1.3	2.51	3.93	1.88	341	68	13	212	37	8
CYHEXANE	3.2	0.3	0.2	0.24	0.31	0.29	35	5	2	22	3	1
2MC6+23MC5	63.8	3.1	2.2	4.82	3.21	3.18	721	54	23	448	34	15
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	15.0	0.7	0.5	1.13	0.72	0.72	169	12	5	105	8	3
224MPENTAN	121.7	6.9	5.6	9.19	7.14	8.09	1372	120	59	853	75	37
NHEPTANE	13.2	0.5	0.3	1.00	0.52	0.43	149	9	3	93	5	2
MCYHEXANE	7.6	0.4	0.2	0.57	0.41	0.29	84	7	2	52	4	1
25MHEXANE	12.9	0.0	0.0	0.97	0.00	0.00	145	0	0	90	0	0
24MC6+23M	9.9	1.3	0.9	0.75	1.35	1.30	112	23	10	69	14	6
234MC5	40.8	1.5	1.1	3.08	1.55	1.59	460	26	12	286	16	7
TOLUENE	49.2	3.6	1.7	3.71	3.73	2.46	512	58	17	318	36	10
23MC6+4MC7	12.3	0.6	0.4	0.93	0.62	0.58	139	10	4	86	6	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70002
DATE RUN: 06 15 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8H11Y148568 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
24MHEXANE	10.5	0.5	0.2	0.79	0.52	0.29	118	9	2	74	5	1
3MHEPTANE	10.9	0.5	0.3	0.82	0.52	0.43	123	9	3	76	5	2
255MC6	13.5	0.8	0.6	1.02	0.83	0.87	152	14	6	94	9	4
N OCTANE	4.9	0.2	0.1	0.37	0.21	0.14	55	3	1	34	2	1
223MC6	0.6	0.1	0.1	0.05	0.10	0.14	7	2	1	4	1	1
ETCYHEXANE	3.6	0.2	0.1	0.27	0.21	0.14	40	3	1	25	2	1
ET BENZENE	9.4	0.4	0.1	0.71	0.41	0.14	96	6	1	61	4	1
M+PXYLENE	32.1	1.8	0.6	2.42	1.86	0.87	336	29	6	209	18	4
244MC8	6.1	0.3	0.2	0.46	0.31	0.29	69	5	2	43	3	1
O XYLENE	14.6	0.9	0.4	1.10	0.93	0.58	153	15	4	95	9	2
N NONANE	6.9	0.4	0.2	0.52	0.41	0.29	78	7	2	48	4	1
IPRBENZENE	4.8	0.2	0.1	0.36	0.21	0.14	51	3	1	31	2	1
NPRBENZENE	3.1	0.1	0.0	0.23	0.10	0.00	33	2	0	20	1	0
1M3ETBENZ	13.2	0.6	0.2	1.00	0.62	0.29	139	10	2	86	6	1
135MEBENZ	6.3	0.3	0.1	0.48	0.31	0.14	66	5	1	41	3	1
1M2ETBENZ	8.7	0.5	0.3	0.66	0.52	0.43	92	8	3	57	5	2
124MBENZ	18.0	1.0	0.4	1.36	1.04	0.58	190	16	4	118	10	2
SBUBENZENE	2.6	0.3	0.2	0.20	0.31	0.29	28	5	2	17	3	1
N DECANE	1.2	0.0	0.0	0.09	0.00	0.00	13	0	0	8	0	0
123MBENZ	3.9	0.3	0.2	0.29	0.31	0.29	41	5	2	26	3	1
INDANE	1.7	0.1	0.1	0.13	0.10	0.14	18	2	1	11	1	1
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	4.4	0.2	0.2	0.33	0.21	0.29	47	3	2	29	2	1
1M3PNBENZ	5.5	0.3	0.2	0.42	0.31	0.29	56	5	2	36	3	1
UNKNOWNS	131.1	12.1	11.5	9.90	12.53	16.62	1389	198	115	863	123	71

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70003
DATE RUN: 08 16 7H
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8X11Y148568 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 0

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	1630.0	82.1	63.3
GC PPMC	1513.4	79.7	56.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	130.1	13.1	14.3	8.60	16.44	25.40	1920	256	190	1194	160	118
SATURATES	706.9	34.0	32.7	46.71	42.66	58.08	9342	600	389	5806	373	242
OLEFINS	231.7	12.5	3.0	15.31	15.68	5.33	2991	215	35	1859	134	22
ACETYLENE	50.9	0.0	0.0	3.36	0.00	0.00	610	0	0	379	0	0
NAPTHENES	34.8	1.3	1.1	2.30	1.63	1.95	449	22	13	279	14	8
AROMATICS	207.6	12.5	3.4	13.72	15.68	6.04	2516	202	37	1564	126	23
BENZENE	34.2	3.2	0.6	2.26	4.02	1.07	410	51	6	255	32	4
TOLUENE	49.6	4.2	1.3	3.28	5.27	2.31	601	68	14	374	42	9
C8+AROM	123.8	5.1	1.5	8.18	6.40	2.66	1525	84	17	948	52	10
UNKNOWN	151.4	6.3	1.8	0.00	0.00	0.00	1870	104	20	1162	65	12
INDIVIDUAL COMPONENTS												
METHANE	130.1	13.1	14.3	8.60	16.44	25.40	1920	256	190	1194	160	118
ETHYLENE	80.8	6.1	2.0	5.34	7.65	3.55	1043	105	23	648	65	14
ETHANE	7.7	2.1	2.1	0.51	2.63	3.73	107	39	26	66	24	16
ACETYLENE	50.9	0.0	0.0	3.36	0.00	0.00	610	0	0	379	0	0
C3 + C3=	29.6	2.6	0.1	1.96	3.26	0.18	382	45	1	237	28	1
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	10.7	1.1	1.1	0.71	1.38	1.95	143	20	13	89	12	8
B1 + 1B	18.0	1.3	0.1	1.19	1.63	0.18	232	22	1	144	14	1
NC4 +BB=1=3	75.2	5.4	5.7	4.97	6.78	10.12	1006	96	69	625	60	43
TBUTENE-2	7.7	0.5	0.2	0.51	0.63	0.36	99	9	2	62	5	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	7.2	0.4	0.2	0.48	0.50	0.36	93	7	2	58	4	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	1.9	0.1	0.0	0.13	0.13	0.00	25	2	0	15	1	0
ISOPENTANE	88.3	4.7	5.2	5.83	5.90	9.24	1173	63	62	729	52	39
PENTENE-1	4.1	0.0	0.0	0.27	0.00	0.00	53	0	0	33	0	0
2MBUT-1	7.6	0.0	0.0	0.50	0.00	0.00	98	0	0	61	0	0
NPENTANE	14.3	1.0	0.9	0.94	1.25	1.60	190	18	11	118	11	7
2MB=1=3	2.7	0.0	0.0	0.18	0.00	0.00	34	0	0	21	0	0

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EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70003
DATE RUN: 08 16 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT-2	12.5	0.3	0.1	0.83	0.38	0.18	161	5	1	100	3	1
CISPENT-2	6.5	0.1	0.0	0.43	0.13	0.00	84	2	0	52	1	0
2MBUT-2	21.4	0.6	0.2	1.41	0.75	0.36	276	10	2	172	6	1
22MBUTANE	0.7	0.0	0.0	0.05	0.00	0.00	9	0	0	6	0	0
CYPENTENE	2.6	0.0	0.0	0.17	0.00	0.00	33	0	0	20	0	0
3MPENTENE	1.9	0.0	0.0	0.13	0.00	0.00	25	0	0	15	0	0
CYPENTANE	2.0	0.1	0.1	0.13	0.13	0.16	26	2	1	16	1	1
23MBUTANE	16.3	0.7	0.7	1.08	0.88	1.24	215	12	8	134	8	5
2MPENTANE	41.2	1.7	1.8	2.72	2.13	3.20	544	30	21	338	19	13
3MPENTANE	22.4	0.9	0.9	1.48	1.13	1.60	296	16	11	184	10	7
HEXENE-1	5.6	0.1	0.0	0.37	0.13	0.00	72	2	0	45	1	0
N HEXANE	8.8	0.3	0.3	0.58	0.38	0.53	116	5	4	72	3	2
TC6=3,=2	11.9	0.3	0.1	0.79	0.38	0.18	154	5	1	95	3	1
CC6=3	3.3	0.0	0.0	0.22	0.00	0.00	43	0	0	26	0	0
2MPENTENE2	6.4	0.1	0.0	0.42	0.13	0.00	83	2	0	51	1	0
MCYP4JM2C5	16.7	0.6	0.6	1.10	0.75	1.07	216	10	7	134	6	4
24MPENTANE	33.4	1.2	1.1	2.21	1.51	1.95	440	21	13	273	13	8
BENZENE	34.2	3.2	0.6	2.26	4.02	1.07	410	51	6	255	32	4
CYHEXANE	3.6	0.2	0.1	0.24	0.25	0.18	46	3	1	29	2	1
2MC6+23MC5	73.4	2.6	2.3	4.85	3.26	4.09	967	46	27	601	28	17
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	17.0	0.6	0.6	1.12	0.75	1.07	224	11	7	139	7	4
224MPENTAN	138.8	5.9	5.7	9.17	7.40	10.12	1824	103	67	1133	64	42
MHEPTANE	14.6	0.3	0.2	0.96	0.38	0.36	192	5	2	120	3	1
MCYHEXANE	8.5	0.3	0.2	0.56	0.38	0.36	110	5	2	68	3	1
25MHEXANE	14.1	0.0	0.0	0.93	0.00	0.00	185	0	0	115	0	0
24MC6+23MH	10.0	1.0	0.9	0.66	1.25	1.60	131	18	11	82	11	7
234MC5	49.0	1.5	1.1	3.24	1.88	1.95	644	26	13	400	16	8
TOLUENE	49.6	4.2	1.3	3.28	5.27	2.31	601	68	14	374	42	9
23MC6+4MC7	13.6	0.6	0.4	0.90	0.75	0.71	179	11	5	111	7	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70003
DATE RUN: 08 16 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8X11Y148508 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	11.6	0.5	0.4	0.77	0.63	0.71	152	9	5	95	5	3
3MHEPTANE	14.0	0.4	0.3	0.79	0.50	0.53	156	7	4	98	4	2
255MC6	14.5	0.6	0.5	0.90	0.75	0.89	190	10	6	118	7	4
N OCTANE	4.8	0.2	0.1	0.32	0.25	0.18	63	4	1	39	2	1
223MC6	0.8	0.1	0.1	0.05	0.13	0.18	10	2	1	7	1	1
ETCYHEXANE	4.0	0.1	0.1	0.26	0.13	0.18	52	2	1	32	1	1
ET BENZENE	10.3	0.3	0.1	0.66	0.38	0.18	126	5	1	78	3	1
M+PXYLENE	32.5	1.4	0.3	2.15	1.76	0.53	397	23	3	247	14	2
24MC8	6.5	0.2	0.1	0.43	0.25	0.18	85	3	1	53	2	1
O XYLENE	14.9	0.6	0.2	0.98	0.75	0.36	182	10	2	113	6	1
N NONANE	7.2	0.3	0.2	0.48	0.38	0.36	94	5	2	59	3	1
IPRBENZENE	5.2	0.2	0.1	0.34	0.25	0.18	64	3	1	40	2	1
NPRBENZENE	3.2	0.1	0.0	0.21	0.13	0.00	39	2	0	24	1	0
1M3ETBENZ	13.3	0.5	0.1	0.88	0.63	0.18	163	8	1	102	5	1
135MEBENZ	6.5	0.2	0.1	0.43	0.25	0.18	80	3	1	50	2	1
1M2ETBENZ	9.2	0.4	0.2	0.61	0.50	0.36	113	7	2	70	4	1
124MBENZ	17.6	0.7	0.2	1.16	0.88	0.36	216	11	2	134	7	1
SBUBENZENE	1.5	0.2	0.1	0.10	0.25	0.18	19	3	1	12	2	1
N DECANE	0.0	0.1	0.0	0.00	0.13	0.00	0	2	0	0	1	0
123MBENZ	2.7	0.2	0.1	0.18	0.25	0.18	33	3	1	21	2	1
INDANE	1.3	0.1	0.0	0.09	0.13	0.00	16	2	0	10	1	0
13DIBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	1.3	0.1	0.0	0.09	0.13	0.00	16	2	0	10	1	0
1M3PRBENZ	4.3	0.1	0.0	0.28	0.13	0.00	53	2	0	33	1	0
UNKNOWNS	151.4	6.3	1.8	10.00	7.90	3.20	1870	104	20	1162	65	12

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70201
DATE RUN: 08 18 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8X11Y148568 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 20

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	659.6	55.5	69.4
GC PPMC	660.6	50.1	61.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	86.8	11.1	14.9	13.14	22.16	24.31	1135	220	202	705	137	126
SATURATES	257.8	28.1	35.2	39.03	56.09	57.42	3017	500	428	1875	310	266
OLEFINS	132.3	2.6	4.9	20.03	5.19	7.99	1512	45	58	940	28	36
ACETYLENE	15.7	0.0	0.0	2.38	0.00	0.00	167	0	0	104	0	0
NAPTHENES	12.8	0.9	1.1	1.94	1.80	1.79	146	16	13	91	10	8
AROMATICS	100.7	2.8	3.1	15.24	5.59	5.06	1081	46	35	672	28	21
BENZENE	16.6	0.6	0.6	2.51	1.20	0.98	176	10	7	109	6	4
TOLUENE	23.3	1.0	1.1	3.53	2.00	1.79	250	16	12	155	10	8
C8+AROM	60.8	1.2	1.4	9.20	2.40	2.28	663	20	16	412	12	10
UNKNOWN	54.5	4.6	2.1	0.00	0.00	0.00	596	76	24	371	48	15
INDIVIDUAL COMPONENTS												
METHANE	86.8	11.1	14.9	13.14	22.16	24.31	1135	220	202	705	137	126
ETHYLENE	61.8	1.7	3.7	9.36	3.39	6.06	707	30	44	439	18	27
ETHANE	3.9	2.2	2.8	0.59	4.39	4.57	48	41	36	30	25	22
ACETYLENE	15.7	0.0	0.0	2.38	0.00	0.00	167	0	0	104	0	0
C3 + C3=	19.7	0.4	0.4	2.98	0.60	0.65	225	5	5	140	3	3
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	4.4	0.9	1.2	0.67	1.80	1.96	52	16	15	32	10	9
B1 + 1B	12.2	0.1	0.1	1.85	0.20	0.16	139	2	1	87	1	1
NC4 +B=1=3	27.8	4.9	6.0	4.21	9.78	9.79	329	88	74	205	55	46
TBUTENE-2	3.8	0.2	0.2	0.58	0.40	0.33	43	3	2	27	2	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	3.4	0.1	0.1	0.51	0.20	0.16	39	2	1	24	1	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.9	0.0	0.0	0.14	0.00	0.00	10	0	0	6	0	0
ISOPENTANE	27.6	4.6	5.6	4.18	9.18	9.14	325	82	68	202	51	42
PENTENE-1	1.3	0.0	0.0	0.20	0.00	0.00	15	0	0	9	0	0
2MBUT-1	2.7	0.0	0.0	0.41	0.00	0.00	31	0	0	19	0	0
NPENTANE	4.5	0.7	0.9	0.68	1.40	1.47	53	13	11	33	8	7
2MB=1=3	1.1	0.0	0.0	0.17	0.00	0.00	12	0	0	8	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO: 70201
DATE RUN: 06 18 76
CAR: 1976 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	4.0	0.1	0.1	0.61	0.20	0.16	46	2	1	28	1	1
CISPENT-2	2.0	0.0	0.0	0.30	0.00	0.00	23	0	0	14	0	0
2MBUT-2	8.0	0.1	0.2	1.21	0.20	0.33	91	2	2	57	1	1
22MBUTANE	0.5	0.0	0.3	0.08	0.00	0.49	6	0	4	4	0	2
CYPENTENE	1.3	0.0	0.0	0.20	0.00	0.00	14	0	0	9	0	0
3MPLNTENE	0.9	0.0	0.0	0.14	0.00	0.00	10	0	0	6	0	0
CYPENTANE	0.8	0.1	0.1	0.12	0.20	0.16	9	2	1	6	1	1
23MBUTANE	5.7	0.7	0.9	0.86	1.40	1.47	67	12	11	41	8	7
2MPENTANE	13.4	1.6	2.1	2.03	3.19	3.43	157	28	26	97	18	16
3MPENTANE	7.4	0.8	1.0	1.12	1.60	1.64	87	14	12	54	9	8
HEXENE-1	2.0	0.0	0.0	0.30	0.00	0.00	23	0	0	14	0	0
N HEXANE	2.9	0.2	0.1	0.44	0.40	0.16	34	4	1	21	2	1
TC6=3=2	4.2	0.0	0.0	0.64	0.00	0.00	48	0	0	30	0	0
CC6=3	1.1	0.0	0.0	0.17	0.00	0.00	13	0	0	8	0	0
2MPENTENE2	1.9	0.0	0.1	0.29	0.00	0.16	22	0	1	13	0	1
MCYP43M2C5	5.9	0.4	0.6	0.89	0.80	0.98	67	7	7	42	4	4
24MPENTANE	11.6	1.0	1.2	1.76	2.00	1.96	135	18	15	84	11	9
BENZENE	16.6	0.6	0.6	2.51	1.20	0.98	176	10	7	109	6	4
CYMEXANE	1.3	0.1	0.1	0.20	0.20	0.16	15	2	1	9	1	1
2MC6+23MC5	25.5	1.9	2.4	3.86	3.79	3.92	297	34	29	185	21	18
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	5.9	0.4	0.5	0.89	0.80	0.82	69	7	6	43	4	4
224MPENTAN	53.5	5.0	5.8	8.10	9.98	9.46	623	88	70	387	55	44
NHEPTANE	5.5	0.1	0.2	0.83	0.20	0.33	64	2	2	40	1	2
MCYHEXANE	3.2	0.2	0.2	0.48	0.40	0.33	37	3	2	23	2	1
25MHEXANE	5.4	0.0	0.0	0.82	0.00	0.00	63	0	0	39	0	0
24MC6+233M	4.4	0.7	0.9	0.67	1.40	1.47	51	12	11	32	8	7
234MC5	17.2	0.9	1.1	2.60	1.80	1.79	200	16	13	124	10	8
TOLUENE	23.3	1.0	1.1	3.53	2.00	1.79	250	16	12	155	10	8
23MC6+4MC7	5.5	0.3	0.4	0.83	0.60	0.65	64	5	5	40	3	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70201
DATE RUN: 08 18 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	4.8	0.3	0.4	0.73	0.60	0.65	56	5	5	35	3	3
3MHEPTANE	4.9	0.2	0.3	0.74	0.40	0.49	57	4	4	35	2	2
255MC6	6.1	0.4	0.5	0.92	0.80	0.82	71	7	6	44	4	4
N OCTANE	2.0	0.1	0.1	0.30	0.20	0.16	23	2	1	14	1	1
223MC6	1.3	0.0	0.1	0.20	0.00	0.16	15	0	1	9	0	1
ETCYHCXANE	1.6	0.1	0.1	0.24	0.20	0.16	18	2	1	11	1	1
ET BENZENE	4.5	0.1	0.1	0.68	0.20	0.16	49	2	1	30	1	1
M+PXYLENE	15.0	0.2	0.3	2.27	0.40	0.49	162	3	3	101	2	2
244MC8	2.9	0.1	0.2	0.44	0.20	0.33	34	2	2	21	1	1
O XYLENE	6.8	0.2	0.2	1.03	0.40	0.33	74	3	2	46	2	1
N NONANE	3.2	0.1	0.2	0.48	0.20	0.33	37	2	2	23	1	1
IPRBENZENE	2.3	0.1	0.1	0.35	0.20	0.16	25	2	1	16	1	1
NPRBENZENE	1.4	0.0	0.0	0.21	0.00	0.00	15	0	0	9	0	0
1M3ETBENZ	6.5	0.1	0.1	0.98	0.20	0.16	71	2	1	44	1	1
135MEBENZ	2.6	0.0	0.0	0.39	0.00	0.00	28	0	0	18	0	0
1M2ETBENZ	4.2	0.1	0.3	0.64	0.20	0.49	46	2	3	28	1	2
124MBENZ	8.5	0.2	0.2	1.29	0.40	0.33	93	3	2	57	2	1
SBUBENZENE	1.3	0.1	0.1	0.20	0.20	0.16	14	2	1	9	1	1
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	1.8	0.1	0.0	0.27	0.20	0.00	20	2	0	12	1	0
INDANE	1.0	0.0	0.0	0.15	0.00	0.00	11	0	0	7	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	2.2	0.0	0.0	0.33	0.00	0.00	24	0	0	15	0	0
1M3PRBENZ	2.7	0.0	0.0	0.41	0.00	0.00	30	0	0	18	0	0
UNKNOWNS	54.5	4.6	2.1	8.25	9.18	3.43	596	76	24	371	48	15

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70202
DATE RUN: 08 21 76
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 6R11Y146566 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 20

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	920.3	70.8	86.7
GC PPMC	900.4	70.0	79.0

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
MAJOR COMPONENTS												
METHANE	88.1	11.9	12.9	9.78	17.00	16.33	1285	209	163	798	130	101
SATURATES	413.0	28.4	37.2	45.87	40.57	47.09	5392	447	421	3351	278	262
OLEFINS	148.4	11.4	14.2	16.48	16.29	17.97	1892	175	157	1176	109	98
ACETYLENE	37.6	0.0	0.0	4.18	0.00	0.00	445	0	0	277	0	0
NAPTHENES	19.8	1.1	1.4	2.20	1.57	1.77	252	17	15	157	11	10
AROMATICS	127.0	11.2	9.5	14.10	16.00	12.03	1521	162	99	945	101	61
BENZENE	21.4	3.4	3.0	2.38	4.86	3.80	253	49	31	157	30	19
TOLUENE	31.0	3.3	2.6	3.44	4.71	3.29	371	48	27	231	30	17
C8+AROM	74.6	4.5	3.9	8.29	6.43	4.94	908	66	41	564	41	26
UNKNOWN	66.5	6.0	3.8	0.00	0.00	0.00	811	88	40	504	55	25
INDIVIDUAL COMPONENTS												
METHANE	88.1	11.9	12.9	9.78	17.00	16.33	1285	209	163	798	130	101
ETHYLENE	46.5	5.3	6.1	5.39	7.57	7.72	618	82	67	384	51	42
ETHANE	6.9	2.6	3.0	0.77	3.71	3.80	94	43	36	59	27	22
ACETYLENE	37.6	0.0	0.0	4.18	0.00	0.00	445	0	0	277	0	0
C3 + C3=	21.2	2.6	3.2	2.35	3.71	4.05	270	40	35	168	25	22
C=C=C	0.3	0.0	0.0	0.03	0.00	0.00	4	0	0	2	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	7.5	0.9	1.5	0.83	1.29	1.90	99	14	17	62	9	11
B1 + IB	13.9	1.3	1.7	1.54	1.86	2.15	177	20	19	110	12	12
NC4 +B=1=3	49.4	4.7	7.0	5.49	6.71	8.86	653	75	80	406	47	50
TBUTENE-2	5.3	0.4	0.6	0.59	0.57	0.76	66	6	7	42	4	4
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	5.1	0.3	0.5	0.57	0.43	0.63	65	5	6	40	3	3
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	1.3	0.1	0.1	0.14	0.14	0.13	17	2	1	10	1	1
ISOPENTANE	51.1	4.3	6.2	5.68	6.14	7.85	670	68	71	417	42	44
PENTENE-1	2.5	0.0	0.1	0.28	0.00	0.13	32	0	1	20	0	1
2MBUT-1	5.2	0.2	0.3	0.56	0.29	0.38	66	3	3	41	2	2
NPENTANE	8.2	0.8	1.0	0.91	1.14	1.27	108	13	11	67	8	7
2MB=1=3	1.4	0.0	0.0	0.16	0.00	0.00	17	0	0	11	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70202
DATE RUN: 08 21 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	7.2	0.3	0.3	0.80	0.43	0.38	92	5	3	57	3	2
CISPENT-2	3.8	0.1	0.1	0.42	0.14	0.13	48	2	1	30	1	1
2MBUT-2	13.5	0.5	0.6	1.50	0.71	0.76	172	8	7	107	5	4
22MBUTANE	0.7	0.0	0.0	0.08	0.00	0.00	9	0	0	6	0	0
CYPENTENE	2.0	0.2	0.1	0.22	0.29	0.13	25	3	1	15	2	1
3MPENTENE	1.4	0.0	0.0	0.16	0.00	0.00	18	0	0	11	0	0
CYPENTANE	1.3	0.2	0.2	0.14	0.29	0.25	17	3	2	10	2	1
23MBUTANE	9.8	0.6	0.8	1.09	0.86	1.01	128	9	9	80	6	6
2MPENTANE	23.0	1.8	2.0	2.55	2.57	2.53	300	28	23	187	18	14
3MPENTANE	12.6	0.8	1.0	1.40	1.14	1.27	165	13	11	102	8	7
HEXENE-1	3.7	0.1	0.1	0.41	0.14	0.13	47	2	1	29	1	1
N HEXANE	5.0	0.2	0.3	0.56	0.29	0.38	65	3	3	41	2	2
TC6=3,=2	6.8	0.0	0.2	0.76	0.00	0.25	87	0	2	54	0	1
CC6=3	2.0	0.0	0.1	0.22	0.00	0.13	26	0	1	16	0	1
2MPENTENE2	3.3	0.0	0.1	0.37	0.00	0.13	42	0	1	26	0	1
MCYP43M2C5	9.6	0.5	0.6	1.07	0.71	0.76	122	8	7	76	5	4
24MPENTANE	18.7	0.9	1.2	2.08	1.29	1.52	243	14	14	151	9	8
BENZENE	21.4	3.4	3.0	2.38	4.86	3.80	253	49	31	157	30	19
CYHEXANE	2.0	0.1	0.2	0.22	0.14	0.25	26	2	2	16	1	1
2MC6+23MC5	40.6	1.8	2.5	4.51	2.57	3.16	528	28	28	328	18	18
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	9.0	0.4	0.6	1.00	0.57	0.76	117	6	7	73	4	4
224MPENTAN	79.9	4.3	5.5	8.87	6.14	6.96	1037	67	62	645	42	38
NHEPTANE	8.3	0.2	0.2	0.92	0.29	0.25	108	3	2	67	2	1
MCYHEXANE	4.7	0.2	0.3	0.52	0.29	0.38	60	3	3	37	2	2
25MHEXANE	7.9	0.0	0.0	0.88	0.00	0.00	103	0	0	64	0	0
24MC6+233M	6.0	0.8	0.9	0.67	1.14	1.14	78	13	10	48	8	6
234MC5	25.6	1.0	1.2	2.84	1.43	1.52	332	16	14	207	10	8
TOLUENE	31.0	3.3	2.6	3.44	4.71	3.29	371	48	27	231	30	17
23MC6+4MC7	7.7	0.5	0.4	0.86	0.71	0.51	100	8	5	62	5	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70202
DATE RUN: 08 21 76
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	6.6	0.4	0.4	0.73	0.57	0.51	86	6	5	53	4	3
3MHEPTANE	6.8	0.3	0.4	0.76	0.43	0.51	88	5	5	55	3	3
255MC6	8.3	0.5	0.5	0.92	0.71	0.63	108	8	6	67	5	3
N OCTANE	2.8	0.1	0.1	0.31	0.14	0.13	36	2	1	23	1	1
223MC6	1.8	0.1	0.1	0.20	0.14	0.13	23	2	1	14	1	1
ETCYHEXANE	2.2	0.1	0.1	0.24	0.14	0.13	28	2	1	17	1	1
ET BENZENE	6.0	0.2	0.3	0.67	0.29	0.38	72	3	3	45	2	2
M+PXYLENE	19.6	1.2	1.1	2.18	1.71	1.39	236	17	12	147	11	7
244MC8	3.8	0.2	0.2	0.42	0.29	0.25	49	3	2	31	2	1
O XYLENE	8.9	0.5	0.5	0.99	0.71	0.63	107	7	5	67	5	3
N NONANE	4.3	0.2	0.2	0.48	0.29	0.25	56	3	2	35	2	1
IPRBENZENE	3.0	0.1	0.2	0.33	0.14	0.25	36	1	2	23	1	1
NPRBENZENE	1.8	0.0	0.0	0.20	0.00	0.00	22	0	0	14	0	0
1M3ETBENZ	7.7	0.4	0.4	0.86	0.57	0.51	93	6	4	58	4	3
135MEBENZ	3.2	0.2	0.2	0.36	0.29	0.25	39	3	2	24	2	1
1M2ETHENZ	5.3	0.4	0.4	0.59	0.57	0.51	64	6	4	40	4	3
124MBENZ	9.9	0.7	0.5	1.10	1.00	0.63	120	10	5	75	6	3
SBUULNZENE	1.5	0.1	0.1	0.17	0.14	0.13	18	1	1	11	1	1
N DECANE	0.7	0.0	0.0	0.08	0.00	0.00	9	0	0	6	0	0
123MBENZ	1.8	0.2	0.1	0.20	0.29	0.13	22	3	1	14	2	1
INDANE	1.1	0.1	0.1	0.12	0.14	0.13	13	1	1	8	1	1
13EBLNZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NDUBLNZENE	2.2	0.2	0.0	0.24	0.29	0.00	27	3	0	17	2	0
1M3PRBENZ	2.6	0.2	0.0	0.29	0.29	0.00	32	3	0	20	2	0
UNKNOWNS	66.5	6.0	3.8	7.39	8.57	4.81	811	88	40	504	55	25

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TLST NO.: 70401
DATE RUN: 06 11 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148563 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 40

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	467.4	26.6	46.2
GC PPMC	477.9	30.8	44.7

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	73.6	9.2	11.5	15.40	29.87	25.73	929	133	141	578	83	88
SATURATES	161.7	14.6	23.3	33.84	47.40	52.13	1828	189	257	1136	117	159
OLEFINS	93.5	2.1	3.4	19.56	6.82	7.61	1032	27	37	642	16	23
ACETYLENE	39.3	0.0	0.3	8.22	0.00	0.67	403	0	3	250	0	2
NAPTHENES	7.8	0.7	0.6	1.63	2.27	1.34	86	9	6	54	5	4
AROMATICS	68.0	1.7	2.4	14.23	5.52	5.37	705	20	24	438	13	15
BENZENE	11.3	0.3	0.6	2.36	0.97	1.34	116	4	6	72	2	4
TOLUENE	15.5	0.4	0.8	3.24	1.30	1.79	161	5	8	100	3	5
C8+AROM	41.2	1.0	1.0	8.62	3.25	2.24	434	12	10	270	7	6
UNKNOWN	34.0	2.5	3.2	0.00	0.00	0.00	359	30	33	223	19	20
INDIVIDUAL COMPONENTS												
METHANE	73.6	9.2	11.5	15.40	29.87	25.73	929	133	141	578	83	88
ETHYLENE	46.6	0.5	1.2	9.75	1.62	2.68	515	6	13	320	4	8
ETHANE	5.2	1.5	2.0	1.09	4.87	4.47	62	20	23	38	13	14
ACETYLENE	39.3	0.0	0.3	8.22	0.00	0.67	403	0	3	250	0	2
C3 + C3=	12.8	0.2	0.3	2.68	0.65	0.67	141	3	3	88	2	2
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	2.5	0.5	0.8	0.52	1.62	1.79	29	7	9	18	4	6
B1 + 1B	8.6	0.9	1.6	1.80	2.92	3.58	95	11	17	59	7	11
NC4 +B=1=3	16.5	1.7	3.0	3.45	5.52	6.71	189	22	33	117	14	21
TBUTENE-2	2.7	0.0	0.0	0.56	0.00	0.00	30	0	0	19	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	3.8	0.0	0.0	0.80	0.00	0.00	42	0	0	26	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.6	0.0	0.0	0.13	0.00	0.00	7	0	0	4	0	0
ISOPENTANE	16.7	2.3	3.8	3.49	7.47	8.50	190	30	42	118	19	26
PENTENE-1	0.8	0.0	0.0	0.17	0.00	0.00	9	0	0	5	0	0
2MBUT-1	1.7	0.0	0.0	0.36	0.00	0.00	19	0	0	12	0	0
NPENTANE	2.9	0.5	0.7	0.61	1.62	1.57	33	6	8	20	4	5
2MB=1=3	0.6	0.0	0.0	0.13	0.00	0.00	6	0	0	4	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70401
DATE RUN: 08 11 76
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8X11Y148568 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	2.4	0.1	0.0	0.50	0.32	0.00	26	1	0	16	1	0
CISPENT-2	1.2	0.0	0.0	0.25	0.00	0.00	13	0	0	8	0	0
2MBUT-2	4.4	0.1	0.3	0.92	0.32	0.67	49	1	3	30	1	2
22MBUTANE	1.1	0.1	0.0	0.23	0.32	0.00	12	1	0	8	1	0
CYPENTENE	0.8	0.0	0.0	0.17	0.00	0.00	9	0	0	5	0	0
3MPENTENE	0.4	0.3	0.0	0.08	0.97	0.00	4	4	0	3	2	0
CYPENTANE	0.4	0.1	0.0	0.08	0.32	0.00	4	1	0	3	1	0
23MBUTANE	3.1	0.4	0.6	0.65	1.30	1.34	35	5	7	22	3	4
2MPENTANE	8.8	0.8	1.4	1.84	2.60	3.13	99	10	15	62	6	10
3MPENTANE	4.5	0.6	0.9	0.94	1.95	2.01	51	8	10	32	5	6
HEXENE-1	1.4	0.0	0.0	0.29	0.00	0.00	15	0	0	10	0	0
N HEXANE	1.7	0.2	0.4	0.36	0.65	0.89	19	3	4	12	2	3
TC6=3,=2	2.8	0.0	0.0	0.59	0.00	0.00	31	0	0	19	0	0
CC6=3	0.8	0.0	0.0	0.17	0.00	0.00	9	0	0	5	0	0
2MPENTENE2	1.1	0.0	0.0	0.23	0.00	0.00	12	0	0	8	0	0
MCYP43M2C5	3.6	0.3	0.4	0.75	0.97	0.89	40	4	4	25	2	3
24MPENTANE	7.0	0.6	0.9	1.46	1.95	2.01	79	8	10	49	5	6
BENZENE	11.3	0.3	0.6	2.36	0.97	1.34	116	4	6	72	2	4
CYHEXANE	0.8	0.2	0.0	0.17	0.65	0.00	9	3	0	5	2	0
2MC6+23MC5	15.5	0.9	1.6	3.24	2.92	3.58	175	12	18	109	7	11
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.6	0.3	0.4	0.75	0.97	0.89	41	4	4	25	2	3
224MPENTAN	31.9	2.7	4.2	6.66	8.77	9.40	359	35	46	223	22	29
NHEPTANE	3.6	0.2	0.2	0.75	0.65	0.45	41	3	2	25	2	1
MCYHEXANE	2.0	0.1	0.2	0.42	0.32	0.45	22	1	2	14	1	1
25MHEXANE	3.4	0.0	0.0	0.71	0.00	0.00	38	0	0	24	0	0
24MC6+233M	3.0	0.3	0.6	0.63	0.97	1.34	34	4	7	21	2	4
234MC5	10.2	0.3	0.7	2.13	0.97	1.57	115	4	8	71	2	5
TOLUENE	15.5	0.4	0.8	3.24	1.30	1.79	161	5	8	100	3	5
23MC6+4MC7	3.6	0.1	0.2	0.75	0.32	0.45	40	1	2	25	1	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70401
DATE RUN: 08 11 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
3MHEXANE	3.1	0.1	0.2	0.65	0.32	0.45	35	1	2	22	1	1
3MHEPTANE	3.2	0.1	0.2	0.67	0.32	0.45	36	1	2	22	1	1
255MC6	4.0	0.2	0.3	0.84	0.65	0.67	45	3	3	28	2	2
N OCTANE	1.3	0.0	0.1	0.27	0.00	0.22	15	0	1	9	0	1
223MC6	0.8	0.0	0.0	0.17	0.00	0.00	9	0	0	6	0	0
ETCYHEXANE	1.0	0.0	0.0	0.21	0.00	0.00	11	0	0	7	0	0
ET BENZENE	3.0	0.1	0.1	0.63	0.32	0.22	31	1	1	19	1	1
M+PXYLENE	10.2	0.1	0.2	2.13	0.32	0.45	107	1	2	66	1	1
2+4MC8	1.9	0.1	0.1	0.40	0.32	0.22	21	1	1	13	1	1
O XYLENE	4.6	0.1	0.2	0.96	0.32	0.45	48	1	2	30	1	1
N NONANE	2.2	0.1	0.0	0.46	0.32	0.00	25	1	0	15	1	0
IPHBENZENE	1.5	0.1	0.0	0.31	0.32	0.00	16	1	0	10	1	0
NPRBENZENE	0.8	0.0	0.0	0.17	0.00	0.00	8	0	0	5	0	0
1M3ETBENZ	4.5	0.1	0.0	0.94	0.32	0.00	47	1	0	29	1	0
1,3,5MEBENZ	1.8	0.1	0.2	0.38	0.32	0.45	19	1	2	12	1	1
1M2ETBENZ	2.8	0.0	0.0	0.59	0.00	0.00	29	0	0	18	0	0
124MBENZ	5.7	0.1	0.2	1.19	0.32	0.45	60	1	2	37	1	1
SBUBENZENE	0.8	0.1	0.1	0.17	0.32	0.22	8	1	1	5	1	1
N DECANE	0.4	0.0	0.0	0.08	0.00	0.00	4	0	0	3	0	0
123MBENZ	1.5	0.0	0.0	0.31	0.00	0.00	16	0	0	10	0	0
INDANE	0.7	0.0	0.0	0.15	0.00	0.00	7	0	0	4	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	1.5	0.1	0.0	0.31	0.32	0.00	16	1	0	10	1	0
1M3PRBENZ	1.8	0.1	0.0	0.38	0.32	0.00	19	1	0	12	1	0
UNKNOWNS	34.0	2.5	3.2	7.11	8.12	7.16	359	30	33	223	19	20

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70402
DATE RUN: ON 22 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8K11Y148568 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 40

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	547.1	58.0	77.2
GC PPMC	518.0	48.6	68.2

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	72.4	10.3	12.1	13.98	21.19	17.74	1027	208	160	638	129	99
SATURATES	196.4	23.5	36.1	37.92	48.35	52.93	2493	426	427	1550	264	265
OLEFINS	96.3	5.9	10.2	18.59	12.14	14.96	1194	104	118	742	65	73
ACETYLENE	30.0	0.0	0.0	5.79	0.00	0.00	345	0	0	215	0	0
NAPTHENES	9.0	0.7	1.1	1.74	1.44	1.61	112	12	13	69	8	8
AROMATICS	71.6	5.7	6.2	13.82	11.73	9.09	834	95	67	518	59	42
BENZENE	12.6	2.6	2.2	2.43	5.35	3.23	145	43	24	90	27	15
TOLUENE	16.9	1.3	1.7	3.26	2.67	2.49	197	22	18	122	13	11
C8+AROM	42.1	1.8	2.3	8.13	3.70	3.37	498	30	25	310	19	16
UNKNOWN	42.3	2.5	2.5	0.00	0.00	0.00	502	42	28	312	26	17
INDIVIDUAL COMPONENTS												
METHANE	72.4	10.3	12.1	13.98	21.19	17.74	1027	208	160	638	129	99
ETHYLENE	46.2	2.5	4.2	8.92	5.14	6.16	573	44	49	356	27	30
ETHANE	5.6	2.1	2.6	1.08	4.32	3.81	74	40	32	46	25	20
ACETYLENE	30.0	0.0	0.0	5.79	0.00	0.00	345	0	0	215	0	0
C3 + C3=	13.2	1.4	2.1	2.55	2.88	3.08	164	25	24	102	15	15
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	3.7	1.2	1.9	0.71	2.47	2.79	48	22	23	30	14	14
B1 + 1B	8.5	0.7	0.9	1.64	1.44	1.32	105	12	10	66	8	6
NC4 +B=1=3	23.8	4.9	8.5	4.59	10.08	12.46	306	90	102	190	56	63
TBUTENE-2	3.0	0.4	0.6	0.58	0.82	0.88	37	7	7	23	4	4
22NMPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	3.1	0.3	0.5	0.60	0.62	0.73	38	5	6	24	3	4
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.7	0.0	0.1	0.14	0.00	0.15	9	0	1	5	0	1
ISOPENTANE	23.6	4.3	7.0	4.56	8.85	10.26	301	78	83	187	49	52
PENTENE-1	1.0	0.0	0.1	0.19	0.00	0.15	12	0	1	8	0	1
2MBUT-1	2.1	0.0	0.3	0.41	0.00	0.44	26	0	3	16	0	2
NPENTANE	3.9	0.6	1.0	0.75	1.65	1.47	50	15	12	31	9	7
2MB=1=3	0.6	0.0	0.0	0.12	0.00	0.00	7	0	0	4	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70402
DATE RUN: 08 22 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8K11Y148568 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT-2	3.0	0.2	0.3	0.56	0.41	0.44	37	4	3	23	2	2
CISPENT-2	1.5	0.0	0.1	0.29	0.00	0.15	19	0	1	12	0	1
2MBUT-2	5.2	0.4	0.6	1.00	0.82	0.88	64	7	7	40	4	4
22MBUTANE	1.6	0.0	0.0	0.31	0.00	0.00	20	0	0	13	0	0
CYPENTENE	0.8	0.0	0.0	0.15	0.00	0.00	10	0	0	6	0	0
3MPLNTLNE	0.5	0.0	0.0	0.10	0.00	0.00	6	0	0	4	0	0
CYPENTANE	0.5	0.1	0.2	0.10	0.21	0.29	6	2	2	4	1	1
23MBUTANE	4.2	0.5	0.8	0.81	1.03	1.17	53	9	9	33	6	6
2MPENTANE	11.0	1.1	1.6	2.12	2.26	2.35	140	20	19	87	12	12
3MPENTANE	5.6	0.5	0.9	1.08	1.03	1.32	71	9	11	44	6	7
HEXENE-1	1.6	0.0	0.1	0.31	0.00	0.15	20	0	1	12	0	1
N HEXANE	2.1	0.2	0.3	0.41	0.41	0.44	27	4	4	17	2	2
TC6=3=2	3.1	0.0	0.2	0.60	0.00	0.29	38	0	2	24	0	1
CC6=3	0.8	0.0	0.0	0.15	0.00	0.00	10	0	0	6	0	0
2MPENTENE 2	1.4	0.0	0.1	0.27	0.00	0.15	17	0	1	11	0	1
MCYP43M2C5	4.3	0.4	0.5	0.83	0.82	0.73	53	7	6	33	4	4
24MPENTANE	8.3	0.7	1.0	1.60	1.44	1.47	105	13	12	65	8	7
BENZENE	12.6	2.6	2.2	2.43	5.35	3.23	145	43	24	90	27	15
CYHEXANE	1.0	0.1	0.1	0.19	0.21	0.15	12	2	1	8	1	1
2MC6+23MC5	18.0	1.3	2.0	3.47	2.67	2.93	226	23	24	142	15	15
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	4.1	0.3	0.5	0.79	0.62	0.73	52	5	6	32	3	4
224MPLNTAN	36.7	3.0	4.4	7.09	6.17	6.45	463	54	52	288	34	32
NHEPTANE	3.7	0.1	0.2	0.71	0.21	0.29	47	2	2	29	1	1
MCYHEXANE	2.2	0.1	0.2	0.42	0.21	0.29	27	2	2	17	1	1
25MHEXANE	5.0	0.0	0.0	0.97	0.00	0.00	63	0	0	39	0	0
24MC6+233M	3.2	0.5	0.7	0.62	1.03	1.03	40	9	8	25	6	5
234MC5	11.0	0.6	0.9	2.12	1.23	1.32	139	11	11	86	7	7
TOLUENE	16.9	1.3	1.7	3.26	2.67	2.49	197	22	18	122	13	11
23MC6+4MC7	3.9	0.3	0.3	0.75	0.62	0.44	49	5	4	31	3	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70402
DATE RUN: 08 22 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	3.3	0.2	0.3	0.64	0.41	0.44	42	4	4	26	2	2
3MHEPTANE	3.3	0.2	0.3	0.64	0.41	0.44	42	4	4	26	2	2
255MC6	4.3	0.3	0.4	0.83	0.62	0.59	54	5	5	34	3	3
N OCTANE	1.4	0.1	0.1	0.27	0.21	0.15	18	2	1	11	1	1
223MC6	0.8	0.1	0.1	0.15	0.21	0.15	10	2	1	6	1	1
ETCYHEXANE	1.0	0.0	0.1	0.19	0.00	0.15	12	0	1	8	0	1
ET BENZENE	3.1	0.1	0.2	0.60	0.21	0.29	36	2	2	23	1	1
M+PXYLENE	10.5	0.5	0.7	2.03	1.03	1.03	123	8	8	77	5	5
2+4MC8	1.9	0.1	0.1	0.37	0.21	0.15	24	2	1	15	1	1
O XYLENE	4.9	0.2	0.3	0.95	0.41	0.44	57	3	3	36	2	2
N NONANE	2.3	0.1	0.2	0.44	0.21	0.29	29	2	2	18	1	1
IPRBENZENE	1.6	0.1	0.1	0.31	0.21	0.15	19	2	1	12	1	1
NPRBENZENE	0.9	0.0	0.0	0.17	0.00	0.00	11	0	0	7	0	0
1M3ETBENZ	4.8	0.1	0.2	0.93	0.21	0.29	57	2	2	35	1	1
135MEBENZ	1.9	0.1	0.1	0.37	0.21	0.15	22	2	1	14	1	1
1M2ETBENZ	3.0	0.2	0.2	0.58	0.41	0.29	36	3	2	22	2	1
124MBENZ	6.0	0.3	0.3	1.16	0.62	0.44	71	5	3	44	3	2
SBUBENZENE	0.4	0.1	0.1	0.08	0.21	0.15	5	2	1	3	1	1
N DECANE	0.1	0.0	0.0	0.02	0.00	0.00	1	0	0	1	0	0
123MBENZ	1.1	0.1	0.1	0.21	0.21	0.15	13	2	1	8	1	1
INDANE	0.7	0.0	0.0	0.14	0.00	0.00	8	0	0	5	0	0
13EUENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	1.5	0.0	0.0	0.29	0.00	0.00	18	0	0	11	0	0
1M3PRBENZ	1.7	0.0	0.0	0.33	0.00	0.00	20	0	0	13	0	0
UNKNOWNS	42.3	2.5	2.5	8.17	5.14	3.67	502	42	28	312	26	17

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70601
DATE RUN: 11 07 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8H11Y148568 DRIVER: SWARTZ FUEL: SUNNER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 60

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	170.8	30.6	54.6
GC PPMC	162.9	20.4	46.6

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	33.3	7.7	14.4	20.44	37.75	30.90	436	192	201	271	120	125
SATURATES	49.6	9.3	23.9	30.45	45.59	51.29	582	208	298	362	129	185
OLEFINS	16.1	1.4	2.4	9.88	6.86	5.15	184	31	29	115	19	18
ACETYLENE	12.8	0.0	0.0	7.86	0.00	0.00	136	0	0	85	0	0
NAPTHENES	2.1	0.1	0.5	1.29	0.49	1.07	24	2	6	15	1	4
AROMATICS	36.3	1.8	3.8	22.28	4.90	8.15	391	21	44	243	13	27
BENZENE	6.1	0.3	1.0	3.74	1.47	2.15	65	6	11	40	4	7
TOLUENE	9.7	0.4	1.2	5.95	1.96	2.58	104	8	14	65	5	9
C8+AROM	20.5	0.3	1.6	12.58	1.47	3.43	224	6	19	139	4	12
UNKNOWN	12.7	0.9	1.6	0.00	0.00	0.00	139	19	19	87	12	12
INDIVIDUAL COMPONENTS												
METHANE	33.3	7.7	14.4	20.44	37.75	30.90	436	192	201	271	120	125
ETHYLENE	7.7	0.5	1.9	4.73	2.45	4.08	88	11	23	55	7	14
ETHANE	1.6	1.1	1.8	0.98	5.39	3.86	20	26	24	12	16	15
ACETYLENE	12.8	0.0	0.0	7.86	0.00	0.00	136	0	0	85	0	0
C3 + C3=	3.3	0.8	0.3	2.03	3.92	0.64	38	17	4	24	11	2
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.5	0.2	0.3	0.31	0.98	0.64	6	5	4	4	3	2
B1 + 1B	1.6	0.0	0.0	0.98	0.00	0.00	18	0	0	11	0	0
NC4 +B=1=3	4.9	1.3	3.2	3.01	6.37	6.87	58	29	48	36	18	25
TBUTENE-2	0.3	0.0	0.1	0.18	0.00	0.21	3	0	1	2	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.0	0.12	0.00	0.00	2	0	0	1	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	0.5	1.3	2.8	0.31	6.37	6.01	6	29	35	4	18	22
PENTENE-1	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.2	0.0	0.0	0.12	0.00	0.00	2	0	0	1	0	0
NPENTANE	0.8	0.2	0.4	0.49	0.98	0.86	9	4	5	6	3	3
2MB=1=3	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO: 70608
DATE RUN: 11 07 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148566 DRIVER: SWARTZ FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPLNT=2	0.3	0.0	0.0	0.18	0.00	0.00	3	0	0	2	0	0
CISPENT-2	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.7	0.1	0.1	0.43	0.49	0.21	8	2	1	5	1	1
22MBUTANE	0.1	0.0	0.1	0.06	0.00	0.21	1	0	1	1	0	1
CYPENTENE	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
23MBUTANE	1.0	0.2	0.5	0.61	0.98	1.07	12	4	6	7	3	4
2MPENTANE	2.0	0.4	1.2	1.23	1.96	2.58	23	9	15	15	6	9
3MPENTANE	1.2	0.2	0.7	0.74	0.98	1.50	14	4	9	9	3	5
HEXENE-1	0.3	0.0	0.0	0.18	0.00	0.00	3	0	0	2	0	0
N HEXANE	0.8	0.2	0.5	0.49	0.98	1.07	9	4	6	6	3	4
TC6=3,=2	0.6	0.0	0.0	0.37	0.00	0.00	7	0	0	4	0	0
CC6=3	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.2	0.0	0.0	0.12	0.00	0.00	2	0	0	1	0	0
MCYP43M2C5	1.0	0.1	0.4	0.61	0.49	0.86	11	2	5	7	1	3
24MPENTANE	2.3	0.3	0.9	1.41	1.47	1.93	27	7	11	17	4	7
BENZENE	6.1	0.3	1.0	3.74	1.47	2.15	65	6	11	40	4	7
CYHEXANE	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
2MC6+23MC5	5.1	0.6	1.8	3.13	2.94	3.86	60	13	22	37	8	14
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.8	0.2	0.6	1.10	0.98	1.29	21	4	7	13	3	5
224MPENTAN	10.9	1.9	4.6	6.69	9.31	9.87	127	42	57	79	26	35
NHEPTANE	1.6	0.1	0.4	0.98	0.49	0.86	19	2	5	12	1	3
MCYHEXANE	0.4	0.0	0.1	0.25	0.00	0.21	5	0	1	3	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	2.5	0.2	0.8	1.53	0.98	1.72	29	4	10	18	3	6
234MC5	2.7	0.3	0.9	1.66	1.47	1.93	31	7	11	20	4	7
TOLUENE	9.7	0.4	1.2	5.95	1.96	2.58	104	6	14	65	5	9
23MC6+4MC7	1.4	0.1	0.4	0.86	0.49	0.86	16	2	5	10	1	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70601
DATE RUN: 11 07 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8X11Y148568 DRIVER: SWARTZ FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.7	0.1	0.5	1.04	0.49	1.07	20	2	6	12	1	4
3MHEPTANE	1.6	0.1	0.4	0.98	0.49	0.86	19	2	5	12	1	3
25DMC6	1.5	0.1	0.5	0.92	0.49	1.07	17	2	6	11	1	4
N OCTANE	1.0	0.1	0.2	0.61	0.49	0.43	12	2	2	7	1	2
223MC6	0.2	0.0	0.0	0.12	0.00	0.00	2	0	0	1	0	0
ETCYHEXANE	0.5	0.0	0.0	0.31	0.00	0.00	6	0	0	4	0	0
ET BENZENE	1.5	0.0	0.1	0.92	0.00	0.21	16	0	1	10	0	1
M+PXYLENE	6.2	0.2	0.3	3.81	0.98	0.64	67	4	3	42	3	2
24DMC8	1.0	0.1	0.2	0.61	0.49	0.43	12	2	2	7	1	2
O XYLENE	2.7	0.1	0.2	1.66	0.49	0.43	29	2	2	18	1	1
N NONANE	0.7	0.0	0.2	0.43	0.00	0.43	8	0	2	5	0	2
IPRBENZENE	0.7	0.0	0.2	0.43	0.00	0.43	8	0	2	5	0	1
NPRBENZENE	0.4	0.0	0.0	0.25	0.00	0.00	4	0	0	3	0	0
1M3ETBENZ	2.1	0.0	0.1	1.29	0.00	0.21	23	0	1	14	0	1
135MEBENZ	1.0	0.0	0.4	0.61	0.00	0.86	11	0	5	7	0	3
1M2ETBENZ	1.0	0.0	0.1	0.61	0.00	0.21	11	0	1	7	0	1
124MBENZ	2.8	0.0	0.1	1.72	0.00	0.21	31	0	1	19	0	1
SBUBENZENE	0.4	0.0	0.1	0.25	0.00	0.21	4	0	1	3	0	1
N DECANE	0.2	0.0	0.0	0.12	0.00	0.00	2	0	0	1	0	0
123MBENZ	0.7	0.0	0.0	0.43	0.00	0.00	8	0	0	5	0	0
INDANE	0.4	0.0	0.0	0.25	0.00	0.00	4	0	0	3	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.2	0.0	0.0	0.12	0.00	0.00	2	0	0	1	0	0
1M3PRBENZ	0.4	0.0	0.0	0.25	0.00	0.00	4	0	0	3	0	0
UNKNOWNS	12.7	0.9	1.6	7.80	4.41	3.43	139	19	19	87	12	12

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70602
DATE RUN: 11 08 78
CAR: 1978 FORD PINTO CAL 4 WAY VIN: 8R11Y148568 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 60

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	254.8	35.9	82.5
GC PPMC	249.5	30.4	73.9

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	34.4	10.8	14.4	13.79	35.53	19.49	466	237	212	290	147	132
SATURATES	104.1	15.5	47.1	41.72	50.99	63.73	1263	304	620	785	189	385
OLEFINS	23.9	1.1	3.0	9.58	3.62	4.06	283	21	39	176	13	24
ACETYLENE	8.7	0.0	0.0	3.49	0.00	0.00	96	0	0	59	0	0
NAPTHENES	4.4	0.2	1.6	1.76	0.66	2.17	52	4	21	32	2	13
AROMATICS	57.8	1.4	4.8	23.17	4.61	6.50	643	25	58	400	16	36
BENZENE	7.6	0.5	0.9	3.05	1.64	1.22	84	9	11	52	6	7
TOLUENE	18.6	0.6	2.2	7.45	1.97	2.98	207	11	27	129	7	17
C8+AROM	31.6	0.3	1.7	12.67	0.99	2.30	357	5	21	222	3	13
UNKNOWN	16.2	1.4	3.0	0.00	0.00	0.00	184	26	37	114	16	23
INDIVIDUAL COMPONENTS												
METHANE	34.4	10.8	14.4	13.79	35.53	19.49	466	237	212	290	147	132
ETHYLENE	10.0	1.0	2.5	4.01	3.29	3.38	119	19	32	74	12	20
ETHANE	1.9	1.5	1.9	0.76	4.93	2.57	24	31	26	15	19	16
ACETYLENE	8.7	0.0	0.0	3.49	0.00	0.00	96	0	0	59	0	0
C3 + C3=	4.8	0.1	0.2	1.92	0.33	0.27	57	2	3	35	1	2
C=C=C	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.8	0.2	0.9	0.32	0.66	1.22	10	4	12	6	2	7
B1 + 1B	2.7	0.0	0.0	1.08	0.00	0.00	32	0	0	20	0	0
NC4 +B=1=3	7.9	2.1	7.2	3.17	6.91	9.74	97	42	96	60	26	60
TBUTENE-2	0.6	0.0	0.1	0.24	0.00	0.14	7	0	1	4	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.4	0.0	0.1	0.16	0.00	0.14	5	0	1	3	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.0	0.08	0.00	0.00	2	0	0	1	0	0
ISOPENTANE	7.2	2.0	5.9	2.89	6.58	7.98	88	39	78	55	24	49
PENTENE-1	0.2	0.0	0.0	0.08	0.00	0.00	2	0	0	1	0	0
2MBUT-1	0.4	0.0	0.0	0.16	0.00	0.00	5	0	0	3	0	0
NPENTANE	1.3	0.3	0.9	0.52	0.99	1.22	16	6	12	10	4	7
2MB=1=3	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70602
DATE RUN: 11 08 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: BRIIY148568 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT-2	0.6	0.0	0.0	0.24	0.00	0.00	7	0	0	4	0	0
CISPENT-2	0.3	0.0	0.0	0.12	0.00	0.00	4	0	0	2	0	0
2MBUT-2	1.2	0.0	0.1	0.46	0.00	0.14	14	0	1	9	0	1
22MBUTANE	0.0	0.1	0.1	0.00	0.33	0.14	0	2	1	0	1	1
CYPENTENE	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.2	0.0	0.0	0.08	0.00	0.00	2	0	0	1	0	0
CYPENTANE	0.2	0.0	0.1	0.08	0.00	0.14	2	0	1	1	0	1
23MBUTANE	1.8	0.3	0.9	0.72	0.99	1.22	22	6	12	14	4	7
2MPENTANE	3.7	0.5	2.0	1.48	1.64	2.71	45	10	26	28	6	16
3MPENTANE	2.2	0.4	1.2	0.88	1.32	1.62	27	8	16	17	5	10
HEXENE-1	0.4	0.0	0.0	0.16	0.00	0.00	5	0	0	3	0	0
N HEXANE	1.6	0.2	0.7	0.64	0.66	0.95	19	4	9	12	2	6
TC6=3,=2	1.1	0.0	0.0	0.44	0.00	0.00	13	0	0	8	0	0
CC6=3	0.2	0.0	0.0	0.08	0.00	0.00	2	0	0	1	0	0
2MPENTENE2	0.3	0.0	0.0	0.12	0.00	0.00	4	0	0	2	0	0
MCYP43M2C5	1.9	0.2	0.7	0.76	0.66	0.95	23	4	9	14	2	6
24MPENTANE	4.5	0.6	1.8	1.80	1.97	2.44	54	12	24	34	7	15
BENZENE	7.6	0.5	0.9	3.05	1.64	1.22	84	9	11	52	6	7
CYHEXANE	0.5	0.0	0.3	0.20	0.00	0.41	6	0	4	4	0	2
2MC6+23MC5	10.9	1.2	3.9	4.37	3.95	5.28	132	23	51	82	15	32
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.8	0.4	1.3	1.52	1.32	1.76	46	8	17	29	5	11
224MPENTAN	23.2	3.3	9.2	9.30	10.86	12.45	280	64	120	174	40	75
NHEPTANE	3.6	0.3	0.9	1.44	0.99	1.22	44	6	12	27	4	7
MCYHEXANE	0.9	0.0	0.2	0.36	0.00	0.27	11	0	3	7	0	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	5.4	0.5	1.6	2.16	1.64	2.17	65	10	21	40	6	13
234MC5	6.0	0.5	1.8	2.40	1.64	2.44	72	10	24	45	6	15
TOLUENE	18.6	0.6	2.2	7.45	1.97	2.98	207	11	27	129	7	17
23MC6+4MC7	2.8	0.2	0.7	1.12	0.66	0.95	34	4	9	21	2	6

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70602
DATE RUN: 11 08 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
34MHEXANE		3.6	0.2	1.0		1.44	0.66	1.35		43	4	13		27	2	8
3MHEPTANE		3.2	0.2	0.9		1.28	0.66	1.22		39	4	12		24	2	7
25DMC6		3.0	0.3	1.0		1.20	0.99	1.35		36	6	13		22	4	8
N OCTANE		2.0	0.1	0.5		0.80	0.33	0.68		24	2	7		15	1	4
223MC6		0.4	0.0	0.1		0.16	0.00	0.14		5	0	1		3	0	1
ETCYHEXANE		0.9	0.0	0.3		0.36	0.00	0.41		11	0	4		7	0	2
ET BENZENE		2.7	0.1	0.1		1.08	0.33	0.14		30	2	1		19	1	1
M+PXYLENE		10.5	0.1	0.6		4.21	0.33	0.81		118	2	7		73	1	5
244MC8		1.8	0.1	0.4		0.72	0.33	0.54		22	2	5		13	1	3
O XYLENE		4.5	0.1	0.3		1.80	0.33	0.41		50	2	4		31	1	2
N NONANE		1.2	0.0	0.3		0.48	0.00	0.41		14	0	4		9	0	2
IPRBENZENE		1.2	0.0	0.3		0.48	0.00	0.41		14	0	4		8	0	2
NPRBENZENE		0.7	0.0	0.0		0.28	0.00	0.00		8	0	0		5	0	0
1M3ETBENZ		3.2	0.0	0.0		1.28	0.00	0.00		36	0	0		22	0	0
135MEBENZ		1.3	0.0	0.2		0.52	0.00	0.27		15	0	2		9	0	2
1M2ETBENZ		1.6	0.0	0.0		0.64	0.00	0.00		18	0	0		11	0	0
124MBENZ		3.8	0.0	0.1		1.52	0.00	0.14		43	0	1		27	0	1
SBUBENZENE		0.5	0.0	0.1		0.20	0.00	0.14		6	0	1		4	0	1
N DECANE		0.3	0.0	0.0		0.12	0.00	0.00		4	0	0		2	0	0
123MBENZ		0.9	0.0	0.0		0.36	0.00	0.00		10	0	0		6	0	0
INDANE		0.1	0.0	0.0		0.04	0.00	0.00		1	0	0		1	0	0
13EBENZENE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
NBUBENZENE		0.2	0.0	0.0		0.08	0.00	0.00		2	0	0		1	0	0
1M3PRBENZ		0.4	0.0	0.0		0.16	0.00	0.00		5	0	0		3	0	0
UNKNOWNS		16.2	1.4	3.0		6.49	4.61	4.06		184	26	37		114	16	23

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70701
DATE RUN: 11 06 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8K11Y148568 DRIVER: HYER FUEL: SUMNER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 70

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	207.8	35.1	64.1
GC PPMC	200.6	31.1	54.7

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	32.1	11.7	15.9	16.00	37.62	29.07	426	218	221	265	136	137
SATURATES	82.0	15.5	27.5	40.88	49.84	50.27	973	259	342	605	161	212
OLEFINS	19.1	1.0	3.6	9.52	3.22	6.58	221	16	44	138	10	27
ACETYLENE	6.4	0.0	0.0	3.19	0.00	0.00	69	0	0	43	0	0
NAPTHENES	3.3	0.3	0.7	1.65	0.96	1.28	38	5	8	24	3	5
AROMATICS	45.5	1.3	5.2	22.68	4.18	9.51	495	20	59	308	12	37
BENZENE	5.7	0.4	1.2	2.84	1.29	2.19	61	6	14	38	4	8
TOLUENE	13.7	0.6	1.7	6.83	1.93	3.11	149	9	19	93	6	12
C8+AROM	26.1	0.3	2.3	13.01	0.96	4.20	289	5	27	180	3	17
UNKNOWN	12.2	1.3	1.8	0.00	0.00	0.00	135	20	21	84	13	13
INDIVIDUAL COMPONENTS												
METHANE	32.1	11.7	15.9	16.00	37.62	29.07	426	218	221	265	136	137
ETHYLENE	8.8	0.9	2.9	4.39	2.89	5.30	102	15	35	63	9	22
ETHANE	2.6	1.6	2.1	1.30	5.14	3.84	32	28	27	20	17	17
ACETYLENE	6.4	0.0	0.0	3.19	0.00	0.00	69	0	0	43	0	0
C3 + C3=	3.8	0.1	0.4	1.89	0.32	0.73	44	2	5	27	1	3
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.0	0.3	0.5	0.50	0.96	0.91	12	5	6	7	3	4
B1 + IB	1.8	0.0	0.0	0.90	0.00	0.00	21	0	0	13	0	0
NC4 +B=1=3	7.2	2.4	3.8	3.59	7.72	6.95	86	41	48	54	25	30
TBUTENE-2	0.5	0.0	0.1	0.25	0.00	0.18	6	0	1	4	0	1
22MPRUPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.3	0.0	0.1	0.15	0.00	0.18	3	0	1	2	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	6.2	2.1	3.3	3.09	6.75	6.03	74	35	41	46	22	26
PENTENE-1	0.2	0.0	0.0	0.10	0.00	0.00	2	0	0	1	0	0
2MBUT-1	0.3	0.0	0.0	0.15	0.00	0.00	3	0	0	2	0	0
NPENTANE	1.2	0.4	0.6	0.60	1.29	1.10	14	7	7	9	4	5
2MB=1=3	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70701
DATE RUN: 11 06 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: HYER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.5	0.0	0.0	0.25	0.00	0.00	6	0	0	4	0	0
CISPENT-2	0.2	0.0	0.0	0.10	0.00	0.00	2	0	0	1	0	0
2MBUT-2	0.9	0.0	0.1	0.45	0.00	0.18	10	0	1	6	0	1
22MBUTANE	0.0	0.1	0.1	0.00	0.32	0.18	0	2	1	0	1	1
CYPENTENE	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
23MBUTANE	1.2	0.3	0.5	0.60	0.96	0.91	14	5	6	9	3	4
2MPENTANE	3.1	0.5	0.9	1.55	1.61	1.65	37	8	11	23	5	7
3MPENTANE	1.7	0.4	0.7	0.85	1.29	1.28	20	7	9	13	4	5
HEXENE-1	0.3	0.0	0.0	0.15	0.00	0.00	3	0	0	2	0	0
N HEXANE	1.2	0.2	0.4	0.60	0.64	0.73	14	3	5	9	2	3
TC6=3,=2	0.8	0.0	0.0	0.40	0.00	0.00	9	0	0	6	0	0
CC6=3	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.2	0.0	0.0	0.10	0.00	0.00	2	0	0	1	0	0
MCYP43M2C5	1.4	0.2	0.4	0.70	0.64	0.73	16	3	5	10	2	3
24MPENTANE	3.3	0.6	1.0	1.65	1.93	1.83	39	10	12	24	6	8
BENZENE	5.7	0.4	1.2	2.84	1.29	2.19	61	6	14	38	4	8
CYHEXANE	0.4	0.0	0.0	0.20	0.00	0.00	5	0	0	3	0	0
2MC6+23MC5	8.0	1.1	2.2	3.99	3.54	4.02	95	18	27	59	11	17
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.8	0.4	0.7	1.40	1.29	1.28	33	7	9	21	4	5
224MPENTAN	17.6	3.1	5.2	8.77	9.97	9.51	208	51	64	129	32	40
MHEPTANE	2.6	0.2	0.5	1.30	0.64	0.91	31	3	6	19	2	4
MCYHEXANE	0.7	0.1	0.1	0.35	0.32	0.18	8	2	1	5	1	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	4.0	0.4	0.9	1.99	1.29	1.65	47	7	11	29	4	7
234MC5	4.3	0.4	1.0	2.14	1.29	1.83	51	7	12	32	4	8
TOLUENE	13.7	0.6	1.7	6.83	1.93	3.11	149	9	19	93	6	12
23MC6+4MC7	2.1	0.2	0.5	1.05	0.64	0.91	25	3	6	15	2	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70701
DATE RUN: 11 06 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: HYER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.7	0.2	0.6	1.35	0.64	1.10	32	3	7	20	2	5
3MHEPTANE	2.4	0.2	0.5	1.20	0.64	0.91	28	3	6	18	2	4
255MC6	2.5	0.2	0.6	1.25	0.64	1.10	29	3	7	18	2	5
N OCTANE	1.5	0.1	0.3	0.75	0.32	0.55	18	2	4	11	1	2
223MC6	0.3	0.0	0.1	0.15	0.00	0.18	4	0	1	2	0	1
ETCYHEXANE	0.7	0.0	0.2	0.35	0.00	0.37	8	0	2	5	0	2
ET BENZENE	2.0	0.1	0.1	1.00	0.32	0.18	22	2	1	14	1	1
M+PXYLENE	8.3	0.1	0.6	4.14	0.32	1.10	91	2	7	57	1	4
2+4MC8	1.4	0.1	0.3	0.70	0.32	0.55	16	2	4	10	1	2
O XYLENE	3.6	0.1	0.3	1.79	0.32	0.55	39	2	3	25	1	2
N NONANE	0.9	0.0	0.2	0.45	0.00	0.37	11	0	2	7	0	2
IPRBENZENE	1.0	0.0	0.2	0.50	0.00	0.37	11	0	2	7	0	1
NPRBENZENE	0.6	0.0	0.0	0.30	0.00	0.00	7	0	0	4	0	0
1M3ETBENZ	2.7	0.0	0.1	1.35	0.00	0.18	30	0	1	19	0	1
135MEBENZ	1.2	0.0	0.1	0.60	0.00	0.18	13	0	1	8	0	1
1M2ETBENZ	1.4	0.0	0.4	0.70	0.00	0.73	15	0	5	10	0	3
124MBENZ	3.3	0.0	0.2	1.65	0.00	0.37	36	0	2	23	0	1
SBUBENZENE	0.4	0.0	0.1	0.20	0.00	0.18	4	0	1	3	0	1
N DECANE	0.2	0.0	0.0	0.10	0.00	0.00	2	0	0	1	0	0
123MBENZ	0.7	0.0	0.1	0.35	0.00	0.18	8	0	1	5	0	1
INDANE	0.4	0.0	0.1	0.20	0.00	0.18	4	0	1	3	0	1
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.2	0.0	0.0	0.10	0.00	0.00	2	0	0	1	0	0
1M3PRBENZ	0.3	0.0	0.0	0.15	0.00	0.00	3	0	0	2	0	0
UNKNOWNS	12.2	1.3	1.8	6.08	4.18	3.29	135	20	21	84	13	13

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70702
DATE RUN: 11 09 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 70

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	163.0	30.6	73.0
GC PPMC	144.1	23.9	65.9

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	24.7	6.9	10.0	17.14	28.87	15.17	369	162	145	229	101	90
SATURATES	54.8	13.1	43.4	38.03	54.81	65.86	733	275	562	456	171	350
OLEFINS	13.5	1.1	3.3	9.37	4.60	5.01	176	23	42	110	14	26
ACETYLENE	12.5	0.0	0.0	8.67	0.00	0.00	152	0	0	94	0	0
NAPTHENES	2.3	0.3	1.7	1.60	1.26	2.58	30	6	22	19	4	13
AROMATICS	29.6	1.1	5.1	20.54	4.60	7.74	363	21	61	226	13	38
BENZENE	4.1	0.4	0.9	2.85	1.67	1.37	50	8	11	31	5	7
TOLUENE	10.3	0.6	2.2	7.15	2.51	3.34	126	12	26	79	7	16
C8+AROM	15.2	0.1	2.0	10.55	0.42	3.03	190	2	24	118	1	15
UNKNOWN	6.7	1.4	2.4	0.00	0.00	0.00	84	28	29	52	17	18
INDIVIDUAL COMPONENTS												
METHANE	24.7	6.9	10.0	17.14	28.87	15.17	369	162	145	229	101	90
ETHYLENE	6.4	1.0	2.7	4.44	4.18	4.10	84	21	34	52	13	21
ETHANE	1.7	1.3	1.8	1.18	5.44	2.73	24	29	24	15	18	15
ACETYLENE	12.5	0.0	0.0	8.67	0.00	0.00	152	0	0	94	0	0
C3 + C3=	2.4	0.1	0.3	1.67	0.42	0.46	31	2	4	19	1	2
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISUBUTANE	0.5	0.2	0.7	0.35	0.84	1.06	7	4	9	4	3	6
B1 + IB	1.3	0.0	0.0	0.90	0.00	0.00	17	0	0	11	0	0
NC4 +B=1=3	4.5	1.6	5.8	3.12	6.69	8.80	61	34	76	38	21	47
TBUTENE-2	0.3	0.0	0.1	0.21	0.00	0.15	4	0	1	2	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.0	0.14	0.00	0.00	3	0	0	2	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	4.1	1.6	5.2	2.85	6.69	7.89	55	34	68	34	21	42
PENTENE-1	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.2	0.0	0.0	0.14	0.00	0.00	3	0	0	2	0	0
NPENTANE	0.7	0.3	0.9	0.49	1.26	1.37	9	6	12	6	4	7
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70703
DATE RUN: 11 09 76
CAR: 1976 FORD PINTO CAL 3 WAY VIN: 8R11Y148856H DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	0.3	0.0	0.1	0.21	0.00	0.15	4	0	1	2	0	1
CISPENT-2	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.7	0.0	0.1	0.49	0.00	0.15	9	0	1	6	0	1
22MBUTANE	0.1	0.1	0.5	0.07	0.42	0.76	1	2	6	1	1	4
CYPENTENE	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.1	0.0	0.1	0.07	0.00	0.15	1	0	1	1	0	1
23MBUTANE	1.0	0.3	0.9	0.69	1.26	1.37	13	6	12	8	4	7
2MPENTANE	2.0	0.5	1.6	1.39	2.09	2.43	27	11	21	17	7	13
3MPENTANE	1.2	0.4	1.1	0.83	1.67	1.67	16	8	14	10	5	9
HEXENE-1	0.2	0.0	0.0	0.14	0.00	0.00	3	0	0	2	0	0
N HEXANE	0.8	0.2	0.7	0.56	0.84	1.06	11	4	9	7	3	6
MC6=3,=2	0.7	0.0	0.0	0.49	0.00	0.00	9	0	0	6	0	0
CC6=3	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.2	0.0	0.0	0.14	0.00	0.00	3	0	0	2	0	0
MCYP43M2C5	1.0	0.2	0.8	0.69	0.84	1.21	13	4	10	8	3	6
24MPENTANE	2.4	0.5	1.8	1.67	2.09	2.73	32	10	23	20	7	14
BENZENE	4.1	0.4	0.9	2.85	1.67	1.37	50	8	11	31	5	7
CYHEXANE	0.3	0.0	0.3	0.21	0.00	0.46	4	0	4	2	0	2
2MC6+23MC5	5.6	1.0	3.8	3.89	4.18	5.77	75	21	49	46	13	31
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.9	0.3	1.3	1.32	1.26	1.97	25	6	17	16	4	10
224MPENTAN	12.0	2.8	8.4	8.33	11.72	12.75	160	59	108	99	36	67
NHEPTANE	1.9	0.2	0.9	1.32	0.84	1.37	25	4	12	16	3	7
MCYHEXANE	0.5	0.1	0.2	0.35	0.42	0.30	7	2	3	4	1	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	2.6	0.4	1.6	1.80	1.67	2.43	35	8	21	22	5	13
234MC5	2.9	0.4	1.7	2.01	1.67	2.58	39	8	22	24	5	14
TOLUENE	10.3	0.6	2.2	7.15	2.51	3.34	126	12	26	79	7	16
23MC6+4MC7	1.5	0.2	0.7	1.04	0.84	1.06	20	4	9	12	3	6

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70702
DATE RUN: 11 09 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.7	0.2	1.0	1.18	0.84	1.52	23	4	13	14	3	8
3MHEPTANE	1.6	0.2	0.8	1.11	0.84	1.21	21	4	10	13	3	6
25MC6	1.4	0.2	0.9	0.97	0.84	1.37	19	4	12	12	3	7
N OCTANE	0.9	0.1	0.5	0.62	0.42	0.76	12	2	6	7	1	4
223MC6	0.2	0.0	0.1	0.14	0.00	0.15	3	0	1	2	0	1
ETCYHEXANE	0.4	0.0	0.3	0.28	0.00	0.46	5	0	4	3	0	2
ET BENZENE	1.4	0.0	0.1	0.97	0.00	0.15	17	0	1	11	0	1
M+PXYLENE	5.5	0.1	0.6	3.82	0.42	0.91	68	2	7	42	1	4
24MC6	0.9	0.1	0.4	0.62	0.42	0.61	12	2	5	7	1	3
O XYLENE	2.3	0.0	0.3	1.60	0.00	0.46	28	0	4	18	0	2
N NONANE	0.6	0.0	0.3	0.42	0.00	0.46	8	0	4	5	0	2
IPRBENZENE	0.5	0.0	0.2	0.35	0.00	0.30	6	0	2	4	0	1
NPRBENZENE	0.3	0.0	0.0	0.21	0.00	0.00	4	0	0	2	0	0
1M3ETBENZ	1.5	0.0	0.0	1.04	0.00	0.00	19	0	0	12	0	0
135MEBENZ	0.6	0.0	0.1	0.42	0.00	0.15	7	0	1	5	0	1
1M2ETBENZ	0.7	0.0	0.5	0.49	0.00	0.76	9	0	6	5	0	4
124MBENZ	1.7	0.0	0.1	1.18	0.00	0.15	21	0	1	13	0	1
SBUBENZENE	0.2	0.0	0.1	0.14	0.00	0.15	3	0	1	2	0	1
N DECANE	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.3	0.0	0.0	0.21	0.00	0.00	4	0	0	2	0	0
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
UNKNOWNS	6.7	1.4	2.4	4.65	5.86	3.64	84	28	29	52	17	18

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70801
DATE RUN: 11 02 76
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: WARD--HYEK FUEL: SUNNER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	232.8	42.4	66.6
GC PPMC	237.7	37.8	57.1

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	27.1	10.4	13.0	11.40	27.51	22.77	352	209	190	219	130	118
SATURATES	110.7	20.4	28.5	46.57	53.97	49.91	1286	367	372	799	228	231
OLEFINS	16.0	2.3	6.1	6.73	6.08	10.68	182	40	78	113	25	48
ACETYLENE	5.9	0.0	0.1	2.48	0.00	0.18	62	0	1	39	0	1
NAPTHENES	4.5	0.4	0.9	1.89	1.06	1.58	51	7	11	32	4	7
AROMATICS	56.0	2.4	8.0	23.56	6.35	14.01	597	40	96	371	25	60
BENZENE	5.5	0.9	2.1	2.31	2.38	3.68	58	15	25	36	9	15
TOLUENE	19.8	0.8	3.3	8.33	2.12	5.78	211	13	40	131	8	25
C8+AROM	30.7	0.7	2.6	12.92	1.85	4.55	332	12	32	207	7	20
UNKNOWN	17.5	1.9	0.5	0.00	0.00	0.00	190	32	6	118	20	4
INDIVIDUAL COMPONENTS												
METHANE	27.1	10.4	13.0	11.40	27.51	22.77	352	209	190	219	130	118
ETHYLENE	6.4	2.2	4.6	2.69	5.82	8.06	73	39	59	45	24	36
ETHANE	1.8	1.4	1.6	0.76	3.70	2.80	22	26	22	14	16	14
ACETYLENE	5.9	0.0	0.1	2.48	0.00	0.18	62	0	1	39	0	1
C3 + C3=	2.6	0.1	0.9	1.09	0.26	1.58	29	2	11	18	1	7
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.9	0.3	0.4	0.38	0.79	0.70	11	5	5	7	3	3
B1 + 1B	1.2	0.0	0.2	0.50	0.00	0.35	14	0	3	8	0	2
NC4 +B=1=3	8.3	2.1	3.5	3.49	5.56	6.13	98	38	46	61	24	29
TBUTENE-2	0.4	0.0	0.1	0.17	0.00	0.18	5	0	1	3	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.3	0.0	0.1	0.13	0.00	0.18	3	0	1	2	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.0	0.08	0.00	0.00	2	0	0	1	0	0
ISOPENTANE	8.7	2.2	3.2	3.66	5.82	5.60	102	40	42	63	25	26
PENTENE-1	0.3	0.0	0.0	0.13	0.00	0.00	3	0	0	2	0	0
2MBUT-1	0.5	0.0	0.0	0.21	0.00	0.00	6	0	0	4	0	0
NPENTANE	1.5	0.3	0.5	0.63	0.79	0.88	18	5	7	11	3	4
2MB=1=3	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70801
DATE RUN: 11 02 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8N11Y1R0566 DRIVER: WARD--MYER FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	0.6	0.0	0.0	0.34	0.00	0.00	9	0	0	6	0	0
CISPENT-2	0.4	0.0	0.0	0.17	0.00	0.00	5	0	0	3	0	0
2MBUT-2	0.0	0.0	0.2	0.00	0.00	0.35	0	0	3	0	0	2
22MBUTANE	1.6	0.1	0.1	0.67	0.26	0.18	19	2	1	12	1	1
CYPENTENE	0.2	0.0	0.0	0.08	0.00	0.00	2	0	0	1	0	0
3MPENTENE	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.2	0.0	0.0	0.08	0.00	0.00	2	0	0	1	0	0
23MBUTANE	2.0	0.4	0.6	0.84	1.06	1.05	23	7	8	14	4	5
2MPENTANE	4.0	1.0	1.4	1.68	2.65	2.45	46	18	18	29	11	11
3MPENTANE	2.4	0.5	0.7	1.01	1.32	1.23	28	9	9	17	6	6
HEXENE-1	0.4	0.0	0.0	0.17	0.00	0.00	5	0	0	3	0	0
N HEXANE	1.7	0.3	0.5	0.72	0.79	0.88	20	5	7	12	3	4
TC6=3,=2	1.4	0.0	0.0	0.59	0.00	0.00	16	0	0	10	0	0
CC6=3	0.3	0.0	0.0	0.13	0.00	0.00	3	0	0	2	0	0
2MPENTENE 2	0.4	0.0	0.0	0.17	0.00	0.00	5	0	0	3	0	0
MCYP43M2C5	2.0	0.3	0.5	0.84	0.79	0.88	23	5	6	14	3	4
24MPENTANE	4.7	0.9	1.1	1.96	2.38	1.93	54	16	14	34	10	9
BENZENE	5.5	0.9	2.1	2.31	2.38	3.68	58	15	25	36	9	15
CYHEXANE	0.5	0.0	0.0	0.21	0.00	0.00	6	0	0	4	0	0
2MC6+23MC5	11.2	1.8	2.4	4.71	4.76	4.20	130	32	31	81	20	19
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.8	0.6	0.8	1.60	1.59	1.40	44	11	10	27	7	6
224MPENTAN	24.0	4.4	5.5	10.10	11.64	9.63	277	79	71	172	49	44
NHEPTANE	3.8	0.4	0.6	1.60	1.06	1.05	44	7	8	27	4	5
MCYHEXANE	0.9	0.1	0.2	0.38	0.26	0.35	10	2	3	6	1	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+23M	5.5	0.8	1.1	2.31	2.12	1.93	64	14	14	39	9	9
234MC5	6.3	0.8	1.1	2.65	2.12	1.93	73	14	14	45	9	9
TOLUENE	19.8	0.8	3.3	8.33	2.12	5.78	211	13	40	131	8	25
23MC6+4MC7	2.9	0.3	0.5	1.22	0.79	0.88	33	5	6	21	3	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70R01
DATE RUN: 11 02 Fri
CAR: 1978 FORD PINTO CAL 3 WAY VIN: AM11Y1A9568 DRIVER: WARD--HYER FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	3.6	0.4	0.7	1.51	1.06	1.23	46	7	9	26	4	6
3MHEPTANE	3.3	0.4	0.6	1.39	1.06	1.05	36	7	8	24	4	5
255MC6	3.0	0.5	0.7	1.26	1.32	1.23	35	9	9	21	6	6
N OCTANE	2.1	0.2	0.3	0.88	0.53	0.53	24	4	4	15	2	2
223MC6	0.5	0.0	0.1	0.21	0.00	0.18	6	0	1	4	0	1
ETCYHEXANE	0.9	0.0	0.2	0.38	0.00	0.35	10	0	3	6	0	2
ET BENZENE	2.9	0.1	0.2	1.22	0.26	0.35	31	2	2	19	1	2
M+PXYLENE	11.0	0.2	0.7	4.63	0.53	1.23	118	3	8	73	2	5
244MC8	1.7	0.1	0.3	0.72	0.26	0.53	20	2	4	12	1	2
O XYLENE	4.4	0.1	0.3	1.85	0.26	0.53	47	2	4	29	1	2
N NONANE	1.1	0.2	0.2	0.46	0.53	0.35	13	4	3	8	2	2
IPRBENZENE	1.1	0.1	0.2	0.46	0.26	0.35	12	2	2	7	1	2
NPRBENZENE	0.6	0.0	0.0	0.25	0.00	0.00	6	0	0	4	0	0
1M3ETBENZ	2.9	0.0	0.2	1.22	0.00	0.35	31	0	2	19	0	2
135MEBENZ	1.2	0.2	0.5	0.50	0.53	0.88	13	3	6	8	2	4
1M2ETBENZ	1.3	0.0	0.1	0.55	0.00	0.18	14	0	1	9	0	1
124MBENZ	3.4	0.0	0.2	1.43	0.00	0.35	37	0	2	23	0	2
SBUTLNZENE	0.4	0.0	0.1	0.17	0.00	0.18	4	0	1	3	0	1
N DECANE	0.3	0.0	0.0	0.13	0.00	0.00	3	0	0	2	0	0
123MBENZ	1.0	0.0	0.1	0.42	0.00	0.18	11	0	1	7	0	1
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUTLENZENE	0.2	0.0	0.0	0.08	0.00	0.00	2	0	0	1	0	0
1M3PRBENZ	0.3	0.0	0.0	0.13	0.00	0.00	3	0	0	2	0	0
UNKNOWNS	17.5	1.9	0.5	7.36	5.03	0.88	190	32	6	118	20	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70802
DATE RUN: 11 13 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	84.5	33.1	43.3
GC PPMC	69.3	22.2	35.0

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	16.1	6.6	9.7	26.12	29.73	27.71	277	174	145	172	108	90
SATURATES	25.2	12.6	19.3	36.36	56.76	55.14	345	198	258	214	185	160
OLEFINS	7.2	1.1	2.8	10.39	4.95	8.00	96	25	36	60	16	23
ACETYLENE	2.1	0.0	0.0	3.03	0.00	0.00	26	0	0	16	0	0
NAPTHENES	1.0	0.4	0.5	1.44	1.80	1.43	13	9	7	8	6	4
AROMATICS	15.7	1.5	2.7	22.66	6.76	7.71	197	32	33	123	20	21
BENZENE	2.7	0.4	1.0	3.90	1.80	2.86	34	9	12	21	5	8
TOLUENE	4.8	0.6	1.1	6.93	2.70	3.14	60	13	13	37	8	8
C8+AROM	8.2	0.5	0.6	11.83	2.25	1.71	105	11	7	65	7	5
UNKNOWN	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
INDIVIDUAL COMPONENTS												
METHANE	16.1	6.6	9.7	26.12	29.73	27.71	277	174	145	172	108	90
ETHYLENE	3.9	1.0	2.4	5.63	4.50	6.86	52	23	31	32	14	19
ETHANE	1.8	1.3	1.7	2.60	5.86	4.86	26	32	24	16	20	15
ACETYLENE	2.1	0.0	0.0	3.03	0.00	0.00	26	0	0	16	0	0
C3 + C3=	1.5	0.0	0.0	2.16	0.00	0.00	20	0	0	12	0	0
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.3	0.2	0.3	0.43	0.90	0.86	4	5	4	3	3	3
B1 + I8	0.7	0.0	0.0	1.01	0.00	0.00	9	0	0	6	0	0
NC4 +B=1=3	3.2	1.5	2.9	4.62	6.76	8.29	44	36	39	28	22	24
TBUTENE-2	0.2	0.0	0.0	0.29	0.00	0.00	3	0	0	2	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.1	0.0	0.0	0.14	0.00	0.00	1	0	0	1	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.14	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	2.8	1.5	2.4	4.04	6.76	6.86	39	36	32	24	22	20
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	0.6	0.3	0.4	0.87	1.35	1.14	8	7	5	5	4	3
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70802
DATE RUN: 11 13 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: HVEK FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	0.1	0.0	0.0	0.14	0.00	0.00	1	0	0	1	0	0
CISPENT-2	0.0	0.0	0.1	0.00	0.00	0.29	0	0	1	0	0	1
2MBUT-2	0.3	0.1	0.3	0.43	0.45	0.86	4	2	4	2	1	2
22MBUTANE	0.1	0.0	0.0	0.14	0.00	0.00	1	0	0	1	0	0
CYPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.0	0.14	0.00	0.00	1	0	0	1	0	0
23MBUTANE	0.6	0.3	0.4	0.87	1.35	1.14	8	7	5	5	4	3
2MPENTANE	1.2	0.4	0.6	1.73	1.80	1.71	16	9	8	10	6	5
3MPENTANE	0.7	0.4	0.5	1.01	1.80	1.43	10	9	7	6	6	4
HEXENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
N HEXANE	0.5	0.2	0.3	0.72	0.90	0.86	7	5	4	4	3	2
TC6=3,=2	0.2	0.0	0.0	0.29	0.00	0.00	3	0	0	2	0	0
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.1	0.0	0.0	0.14	0.00	0.00	1	0	0	1	0	0
MCYP43M2C5	0.5	0.2	0.3	0.72	0.90	0.86	7	5	4	4	3	2
24MPENTANE	1.2	0.5	0.7	1.73	2.25	2.00	16	12	9	10	7	5
BENZENE	2.7	0.4	1.0	3.90	1.80	2.86	34	9	12	21	5	8
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	2.8	1.0	1.5	4.04	4.50	4.29	36	24	20	24	15	12
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.0	0.3	0.5	1.44	1.35	1.43	14	7	7	8	4	4
224MPENTAN	0.1	2.6	3.6	0.14	11.71	10.29	1	61	48	1	38	30
MHEPTANE	0.8	0.2	0.3	1.15	0.90	0.86	11	5	4	7	3	2
MCYHEXANE	0.2	0.1	0.1	0.29	0.45	0.29	3	2	1	2	1	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.3	0.4	0.6	1.88	1.80	1.71	18	9	8	11	6	5
234MC5	1.4	0.4	0.7	2.02	1.80	2.00	19	9	9	12	6	6
TOLUENE	4.8	0.6	1.1	6.93	2.70	3.14	68	13	13	37	8	8
23MC6+4MC7	0.8	0.2	0.3	1.15	0.90	0.86	11	5	4	7	3	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70P02
DATE RUN: 11 13 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8W11Y146568 DRIVEN: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
3MHEXANE	0.9	0.2	0.4	1.30	0.90	1.14	12	5	5	8	3	3
3MHEPTANE	0.8	0.2	0.4	1.15	0.90	1.14	11	5	5	7	3	3
255MC6	0.8	0.2	0.4	1.15	0.90	1.14	11	5	5	7	3	3
N OCTANE	0.5	0.1	0.0	0.72	0.45	0.00	7	2	0	4	1	0
223MC6	0.1	0.0	0.1	0.14	0.00	0.29	1	0	1	1	0	1
ETCYHEXANE	0.2	0.1	0.1	0.29	0.45	0.29	3	2	1	2	1	1
ET BENZENE	0.7	0.0	0.0	1.01	0.00	0.00	9	0	0	6	0	0
M+PXYLENE	2.6	0.2	0.3	3.75	0.90	0.86	33	4	4	20	3	2
2+4MC8	0.5	0.1	0.2	0.72	0.45	0.57	7	2	3	4	1	2
O XYLENE	1.1	0.1	0.1	1.59	0.45	0.29	14	2	1	9	1	1
N NONANE	0.3	0.1	0.1	0.43	0.45	0.29	4	2	1	3	1	1
IPRBENZENE	0.3	0.1	0.1	0.43	0.45	0.29	4	2	1	2	1	1
NPRBENZENE	0.2	0.0	0.0	0.29	0.00	0.00	3	0	0	2	0	0
1M3ETBENZ	0.8	0.0	0.0	1.15	0.00	0.00	10	0	0	6	0	0
135MEBENZ	0.4	0.0	0.0	0.58	0.00	0.00	5	0	0	3	0	0
1M2ETBENZ	0.5	0.0	0.0	0.72	0.00	0.00	6	0	0	4	0	0
124MBENZ	1.0	0.1	0.1	1.44	0.45	0.29	13	2	1	8	1	1
SBUBENZENE	0.2	0.0	0.0	0.29	0.00	0.00	3	0	0	2	0	0
N DECANE	0.1	0.0	0.0	0.14	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.2	0.0	0.0	0.29	0.00	0.00	3	0	0	2	0	0
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.14	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.1	0.0	0.0	0.14	0.00	0.00	1	0	0	1	0	0
UNKNOWNS	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70811
DATE RUN: 11 03 78 AIR CONDITIONER USED
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	192.1	41.5	66.3
GC PPMC	190.2	33.3	54.6

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	29.4	9.6	15.8	15.46	28.83	28.83	389	205	231	242	127	144
SATURATES	79.5	17.3	26.1	41.80	51.95	47.63	942	331	342	585	206	213
OLEFINS	19.8	1.9	4.3	10.41	5.71	7.85	229	35	55	142	22	34
ACETYLENE	4.6	0.0	0.0	2.42	0.00	0.00	49	0	0	31	0	0
NAPTHENES	3.2	0.4	0.7	1.68	1.20	1.28	37	7	9	23	5	6
AROMATICS	42.1	2.4	5.7	22.13	7.21	10.40	457	42	68	284	26	43
BENZENE	5.5	0.7	1.6	2.89	2.10	2.92	59	12	19	37	8	12
TOLUENE	12.7	0.8	1.9	6.68	2.40	3.47	138	14	23	86	9	14
C8+AROM	23.9	0.9	2.2	12.57	2.70	4.01	264	16	27	164	10	17
UNKNOWN	11.6	1.7	2.2	0.00	0.00	0.00	128	30	27	80	19	17
INDIVIDUAL COMPONENTS												
METHANE	29.4	9.6	15.8	15.46	28.83	28.83	389	205	231	242	127	144
ETHYLENE	8.5	1.8	3.4	4.47	5.41	6.20	98	34	44	61	21	27
ETHANE	2.0	1.5	1.6	1.05	4.50	2.92	25	30	22	15	19	14
ACETYLENE	4.6	0.0	0.0	2.42	0.00	0.00	49	0	0	31	0	0
C3 + C3=	3.8	0.1	0.6	2.00	0.30	1.09	44	2	8	27	1	5
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.7	0.2	0.4	0.37	0.60	0.73	6	4	5	5	2	3
B1 + IB	1.8	0.0	0.0	0.95	0.00	0.00	21	0	0	13	0	0
NC4 +B=1=3	6.4	1.8	3.6	3.36	5.41	6.57	77	35	48	48	22	30
TBUTENE-2	0.5	0.0	0.1	0.26	0.00	0.18	6	0	1	4	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.5	0.0	0.1	0.26	0.00	0.18	6	0	1	4	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.0	0.11	0.00	0.00	2	0	0	1	0	0
ISOPENTANE	6.3	1.9	3.1	3.31	5.71	5.66	75	37	41	47	23	25
PENTENE-1	0.2	0.0	0.0	0.11	0.00	0.00	2	0	0	1	0	0
2MBUT-1	0.3	0.0	0.0	0.16	0.00	0.00	3	0	0	2	0	0
NPENTANE	1.0	0.3	0.5	0.53	0.90	0.91	12	6	7	7	4	4
2MB=1=3	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70811
DATE RUN: 11 03 78 AIR CONDITIONER USED
CAR: 1978 FORD PINTO CAL 3 WAY VIN: ER11Y148568 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.4	0.0	0.0	0.21	0.00	0.00	5	0	0	3	0	0
CISPENT-2	0.2	0.0	0.0	0.11	0.00	0.00	2	0	0	1	0	0
2MBUT-2	0.8	0.0	0.1	0.42	0.00	0.18	9	0	1	6	0	1
22MBUTANE	0.1	0.1	0.0	0.05	0.30	0.00	1	2	0	1	1	0
CYPENTENE	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.2	0.0	0.0	0.11	0.00	0.00	2	0	0	1	0	0
23MBUTANE	1.6	0.3	0.5	0.84	0.90	0.91	19	6	7	12	4	4
2MPENTANE	3.4	0.6	0.9	1.79	1.80	1.64	40	11	12	25	7	7
3MPENTANE	2.0	0.4	0.7	1.05	1.20	1.28	24	8	9	15	5	6
HEXENE-1	0.8	0.0	0.0	0.42	0.00	0.00	9	0	0	6	0	0
N HEXANE	1.4	0.3	0.4	0.74	0.90	0.73	17	6	5	10	4	3
TC6=3.=2	1.0	0.0	0.0	0.53	0.00	0.00	12	0	0	7	0	0
CC6=3	0.2	0.0	0.0	0.11	0.00	0.00	2	0	0	1	0	0
2MPENTENE2	0.3	0.0	0.0	0.16	0.00	0.00	3	0	0	2	0	0
MCYP43M2C5	1.4	0.3	0.4	0.74	0.90	0.73	16	6	5	10	3	3
24MPENTANE	3.3	0.7	1.0	1.74	2.10	1.82	39	13	13	24	8	8
BENZENE	5.5	0.7	1.6	2.89	2.10	2.92	59	12	19	37	8	12
CYHEXANE	0.4	0.0	0.0	0.21	0.00	0.00	5	0	0	3	0	0
2MC6+23MC5	7.5	1.4	2.1	3.94	4.20	3.83	89	27	27	55	17	17
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.5	0.5	0.7	1.31	1.50	1.28	30	10	9	18	6	6
224MPENTAN	17.0	3.7	5.0	8.94	11.11	9.12	200	70	65	124	44	40
MHEPTANE	2.3	0.3	0.5	1.21	0.90	0.91	27	6	7	17	4	4
MCYHEXANE	0.6	0.1	0.1	0.32	0.30	0.18	7	2	1	4	1	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	3.9	0.6	1.0	2.05	1.80	1.82	46	11	13	29	7	8
234MC5	4.6	0.7	1.0	2.42	2.10	1.82	54	13	13	34	8	8
TOLUENE	12.7	0.8	1.9	6.68	2.40	3.47	136	14	23	86	9	14
23MC6+4MC7	2.1	0.3	0.5	1.10	0.90	0.91	25	6	7	15	4	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70811
DATE RUN: 11 03 78 AIR CONDITIONER USED
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y143568 DRIVEN: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.6	0.4	0.6	1.37	1.20	1.09	31	8	8	19	5	5
3MHEPTANE	2.3	0.4	0.5	1.21	1.20	0.91	27	8	7	17	5	4
255MC6	2.3	0.4	0.6	1.21	1.20	1.09	27	8	8	17	5	5
N OCTANE	1.4	0.1	0.3	0.74	0.30	0.55	16	2	4	10	1	2
223MC6	0.3	0.1	0.1	0.16	0.30	0.18	4	2	1	2	1	1
ETCYHEXANE	0.6	0.0	0.2	0.32	0.00	0.36	7	0	3	4	0	2
ET BENZENE	1.9	0.1	0.2	1.00	0.30	0.36	21	2	2	13	1	2
M+PXYLENE	7.6	0.2	0.6	4.00	0.60	1.09	83	4	7	52	2	5
2+4MC8	1.4	0.2	0.3	0.74	0.60	0.55	16	4	4	10	2	2
O XYLENE	3.3	0.1	0.3	1.74	0.30	0.55	36	2	4	22	1	2
N NONANE	0.9	0.1	0.2	0.47	0.30	0.36	11	2	3	7	1	2
IPRBENZENE	0.9	0.1	0.2	0.47	0.30	0.36	10	2	2	6	1	2
NPRBENZENE	0.5	0.0	0.0	0.26	0.00	0.00	6	0	0	3	0	0
1M3ETBENZ	2.5	0.0	0.1	1.31	0.00	0.18	28	0	1	17	0	1
135MEBENZ	1.1	0.1	0.1	0.58	0.30	0.18	12	2	1	8	1	1
1M2ETBENZ	1.4	0.2	0.4	0.74	0.60	0.73	15	4	5	10	2	3
124MBENZ	3.1	0.1	0.2	1.63	0.30	0.36	34	2	2	21	1	2
SBUBENZENE	0.4	0.0	0.1	0.21	0.00	0.18	4	0	1	3	0	1
N DECANE	0.2	0.0	0.0	0.11	0.00	0.00	2	0	0	1	0	0
123MBENZ	0.7	0.0	0.0	0.37	0.00	0.00	6	0	0	5	0	0
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.2	0.0	0.0	0.11	0.00	0.00	2	0	0	1	0	0
1M3PRBENZ	0.3	0.0	0.0	0.16	0.00	0.00	3	0	0	2	0	0
UNKNOWNS	11.6	1.7	2.2	6.10	5.11	4.01	128	30	27	80	19	17

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70812
DATE RUN: 11 10 78 AIR CONDITIONER USED
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	132.9	30.7	44.2
GC PPMC	132.2	25.2	35.9

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	19.8	8.9	11.8	14.98	35.32	32.87	257	180	171	160	112	106
SATURATES	55.2	13.2	17.7	41.75	52.38	49.30	642	239	230	399	148	143
OLEFINS	11.3	0.7	2.1	8.55	2.78	5.85	128	12	27	80	8	17
ACETYLENE	4.5	0.0	0.0	3.40	0.00	0.00	47	0	0	29	0	0
NAPTHENES	2.1	0.2	0.5	1.59	0.79	1.39	24	4	6	15	2	4
AROMATICS	28.7	1.0	2.6	21.71	3.97	7.24	306	17	31	190	10	19
BENZENE	3.2	0.3	0.8	2.42	1.19	2.23	34	5	9	21	3	6
TOLUENE	9.8	0.5	0.9	7.41	1.98	2.51	104	6	11	65	5	7
CH+AROM	15.7	0.2	0.9	11.88	0.79	2.51	170	3	11	106	2	7
UNKNOWN	10.6	1.2	1.2	0.00	0.00	0.00	115	20	15	72	13	9
INDIVIDUAL COMPONENTS												
METHANE	19.8	8.9	11.8	14.98	35.32	32.87	257	180	171	160	112	106
ETHYLENE	4.7	0.7	1.7	3.56	2.78	4.74	53	12	22	33	8	13
ETHANE	1.9	1.4	1.7	1.44	5.56	4.74	23	27	23	14	16	14
ACETYLENE	4.5	0.0	0.0	3.40	0.00	0.00	47	0	0	29	0	0
C3 + C3=	2.1	0.0	0.3	1.59	0.00	0.84	24	0	4	15	0	2
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.5	0.2	0.3	0.38	0.79	0.84	6	4	4	4	2	2
B1 + 1B	0.8	0.0	0.0	0.61	0.00	0.00	9	0	0	6	0	0
NC4 +B=1=3	5.4	1.8	2.9	4.06	7.14	8.08	64	33	38	39	20	24
TBUTENE-2	0.3	0.0	0.1	0.23	0.00	0.28	3	0	1	2	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.0	0.15	0.00	0.00	2	0	0	1	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	5.0	1.7	2.2	3.78	6.75	6.13	58	31	29	36	19	18
PENTENE-1	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	1.0	0.3	0.4	0.76	1.19	1.11	12	5	5	7	3	3
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70812
DATE RUN: 11 10 78 AIR CONDITIONER USED
CAR: 1978 FORD PINTO CAL 4 WAY VIN: 8R11Y148568 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.4	0.0	0.0	0.30	0.00	0.00	5	0	0	3	0	0
CISPENT-2	0.2	0.0	0.0	0.15	0.00	0.00	2	0	0	1	0	0
2MBUT-2	0.9	0.0	0.0	0.68	0.00	0.00	10	0	0	6	0	0
22MBUTANE	0.0	0.0	0.1	0.00	0.00	0.28	0	0	1	0	0	1
CYPENTENE	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
23MBUTANE	1.0	0.3	0.3	0.76	1.19	0.84	12	5	4	7	3	2
2MPENTANE	1.9	0.4	0.6	1.44	1.59	1.67	22	7	8	14	4	5
3MPENTANE	1.3	0.3	0.4	0.98	1.19	1.11	15	5	5	9	3	3
HEXENE-1	0.3	0.0	0.0	0.23	0.00	0.00	3	0	0	2	0	0
N HEXANE	0.9	0.2	0.3	0.68	0.79	0.84	10	4	4	7	2	2
TC6=3,=2	0.7	0.0	0.0	0.53	0.00	0.00	8	0	0	5	0	0
CC6=3	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.2	0.0	0.0	0.15	0.00	0.00	2	0	0	1	0	0
MCYP4JM2C5	1.0	0.2	0.3	0.76	0.79	0.84	11	4	4	7	2	2
24MPENTANE	2.3	0.5	0.6	1.74	1.98	1.67	27	9	8	17	6	5
BENZENE	3.2	0.3	0.8	2.42	1.19	2.23	34	5	9	21	3	6
CYHEXANE	0.3	0.0	0.0	0.23	0.00	0.00	3	0	0	2	0	0
2MC6+23MC5	5.2	1.0	1.3	3.93	3.97	3.62	60	18	17	37	11	10
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.8	0.3	0.4	1.36	1.19	1.11	21	5	5	13	3	3
224MPENTAN	11.2	2.9	3.2	8.47	11.51	8.91	129	52	41	80	32	26
NHEPTANE	1.7	0.2	0.3	1.29	0.79	0.84	20	4	4	12	2	2
MCYHEXANE	0.4	0.0	0.1	0.30	0.00	0.28	5	0	1	3	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	2.5	0.4	0.5	1.89	1.59	1.39	29	7	6	18	4	4
234MC5	2.8	0.4	0.6	2.12	1.59	1.67	32	7	8	20	4	5
TOLUENE	9.8	0.5	0.9	7.41	1.98	2.51	104	8	11	65	5	7
23MC6+4MC7	1.4	0.2	0.3	1.06	0.79	0.84	16	4	4	10	2	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70812
DATE RUN: 11 10 78 AIR CONDITIONER USED
CAR: 1978 FORD PINTO CAL 4 WAY VIN: 8R11Y148568 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.8	0.2	0.3	1.36	0.79	0.84	21	4	4	13	2	2
3MHEPTANE	1.6	0.2	0.3	1.21	0.79	0.84	18	4	4	11	2	2
255MC6	1.6	0.2	0.3	1.21	0.79	0.84	18	4	4	11	2	2
N OCTANE	0.9	0.1	0.1	0.68	0.40	0.28	10	2	1	6	1	1
223MC6	0.2	0.0	0.0	0.15	0.00	0.00	2	0	0	1	0	0
ETCYHEXANE	0.3	0.0	0.1	0.23	0.00	0.28	3	0	1	2	0	1
ET BENZENE	1.4	0.0	0.1	1.06	0.00	0.28	15	0	1	9	0	1
M+PXYLENE	5.6	0.1	0.3	4.24	0.40	0.84	60	2	4	37	1	2
244MC8	0.8	0.0	0.2	0.61	0.00	0.56	9	0	3	6	0	2
O XYLENE	2.2	0.1	0.1	1.66	0.40	0.28	24	2	1	15	1	1
N NONANE	0.4	0.0	0.1	0.30	0.00	0.28	5	0	1	3	0	1
IPRBENZENE	0.5	0.0	0.1	0.38	0.00	0.28	5	0	1	3	0	1
NPRBENZENE	0.3	0.0	0.0	0.23	0.00	0.00	3	0	0	2	0	0
1M3ETBENZ	1.6	0.0	0.0	1.21	0.00	0.00	17	0	0	11	0	0
135MEBENZ	0.7	0.0	0.1	0.53	0.00	0.28	8	0	1	5	0	1
1M2ETBENZ	0.7	0.0	0.2	0.53	0.00	0.56	8	0	2	5	0	1
124MBENZ	1.8	0.0	0.0	1.36	0.00	0.00	19	0	0	12	0	0
SBUBENZENE	0.2	0.0	0.0	0.15	0.00	0.00	2	0	0	1	0	0
N DECANE	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.4	0.0	0.0	0.30	0.00	0.00	4	0	0	3	0	0
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.2	0.0	0.0	0.15	0.00	0.00	2	0	0	1	0	0
UNKNOWNS	10.6	1.2	1.2	8.02	4.76	3.34	115	20	15	72	13	9

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70901
DATE RUN: 06 23 76
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8K11Y148568 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	106.5	33.1	43.3
GC PPMC	78.1	24.6	31.7

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	14.5	8.6	11.7	18.57	34.96	36.91	267	242	214	166	151	133
SATURATES	35.2	12.9	15.4	45.07	52.44	48.58	560	326	253	361	202	157
OLEFINS	7.4	0.6	1.8	9.48	2.44	5.68	119	15	29	74	9	18
ACETYLENE	1.4	0.0	0.0	1.79	0.00	0.00	21	0	0	13	0	0
NAPTHENES	1.4	0.3	0.2	1.79	1.22	0.63	23	7	3	14	5	2
AROMATICS	14.8	1.9	2.2	18.95	7.72	6.94	224	44	33	139	27	21
BENZENE	2.0	0.3	1.0	2.56	1.22	3.15	30	7	15	19	4	9
TOLUENE	4.5	0.7	0.7	5.76	2.85	2.21	68	16	11	42	10	7
C8+AROM	8.3	0.9	0.5	10.63	3.66	1.58	128	21	8	79	13	5
UNKNOWN	3.4	0.3	0.4	0.00	0.00	0.00	52	7	6	33	4	4
INDIVIDUAL COMPONENTS												
METHANE	14.5	8.6	11.7	18.57	34.96	36.91	267	242	214	166	151	133
ETHYLENE	3.0	0.3	0.9	3.84	1.22	2.84	48	7	14	30	5	9
ETHANE	2.1	2.0	2.1	2.69	8.13	6.62	36	53	36	23	33	22
ACETYLENE	1.4	0.0	0.0	1.79	0.00	0.00	21	0	0	13	0	0
C3 + C3=	1.4	0.1	0.2	1.79	0.41	0.63	23	2	3	14	2	2
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACCTYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.6	0.4	0.5	0.77	1.63	1.58	10	10	8	6	6	5
B1 + IB	0.6	0.0	0.1	0.77	0.00	0.32	10	0	2	6	0	1
NC4 +B=1=3	4.4	2.5	3.1	5.63	10.16	9.78	73	64	51	46	40	32
TBUTENE-2	0.3	0.1	0.1	0.38	0.41	0.32	5	2	2	3	2	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.0	0.26	0.00	0.00	3	0	0	2	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.13	0.00	0.00	2	0	0	1	0	0
ISOPENTANE	3.5	1.9	2.4	4.48	7.72	7.57	58	48	40	36	30	25
PENTENE-1	0.1	0.0	0.0	0.13	0.00	0.00	2	0	0	1	0	0
2MBUT-1	0.1	0.0	0.0	0.13	0.00	0.00	2	0	0	1	0	0
NPENTANE	0.6	0.3	0.4	0.77	1.22	1.26	10	8	7	6	5	4
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70901
DATE RUN: 08 23 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.2	0.0	0.0	0.26	0.00	0.00	3	0	0	2	0	0
CISPENT-2	0.1	0.0	0.0	0.13	0.00	0.00	2	0	0	1	0	0
2MBUT-2	0.5	0.1	0.1	0.64	0.41	0.32	8	2	2	5	2	1
22MBUTANE	0.5	0.3	0.0	0.64	1.22	0.00	8	8	0	5	5	0
CYPENTENE	0.1	0.0	0.0	0.13	0.00	0.00	2	0	0	1	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.0	0.13	0.00	0.00	2	0	0	1	0	0
23MBUTANE	0.7	0.3	0.3	0.90	1.22	0.95	12	8	5	7	5	3
2MPENTANE	1.6	0.6	0.6	2.05	2.44	1.89	26	15	10	16	9	6
3MPENTANE	0.8	0.3	0.2	1.02	1.22	0.63	13	8	3	8	5	2
HEXENE-1	0.5	0.0	0.4	0.64	0.00	1.26	8	0	6	5	0	4
N HEXANE	0.4	0.2	0.2	0.51	0.81	0.63	7	5	3	4	3	2
TC6=3,=2	0.1	0.0	0.0	0.13	0.00	0.00	2	0	0	1	0	0
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.1	0.0	0.0	0.13	0.00	0.00	2	0	0	1	0	0
MCYP43M2C5	0.7	0.2	0.2	0.90	0.81	0.63	11	5	3	7	3	2
24MPENTANE	1.5	0.3	0.4	1.92	1.22	1.26	25	8	7	15	5	4
BENZENE	2.0	0.3	1.0	2.56	1.22	3.15	30	7	15	19	4	9
CYHEXANE	0.2	0.1	0.0	0.26	0.41	0.00	3	2	0	2	2	0
2MC6+23MC5	3.1	0.6	0.9	3.97	2.44	2.84	51	15	15	32	9	9
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.9	0.2	0.3	1.15	0.81	0.95	15	5	5	9	3	3
224MPENTAN	6.3	1.9	2.3	8.07	7.72	7.26	103	48	38	64	30	23
NHEPTANE	0.8	0.1	0.2	1.02	0.41	0.63	13	3	3	8	2	2
MCYHEXANE	0.2	0.0	0.0	0.26	0.00	0.00	3	0	0	2	0	0
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.3	0.2	0.3	1.66	0.81	0.95	21	5	5	13	3	3
234MC5	1.5	0.2	0.3	1.92	0.81	0.95	25	5	5	15	3	3
TOLUENE	4.5	0.7	0.7	5.76	2.85	2.21	68	16	11	42	10	7
23MC6+4MC7	0.7	0.1	0.2	0.90	0.41	0.63	11	3	3	7	2	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70901
DATE RUN: 08 23 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	0.9	0.1	0.2	1.15	0.41	0.63	15	3	3	9	2	2
3MHEPTANE	0.8	0.1	0.1	1.02	0.41	0.32	13	3	2	8	2	1
255MC6	0.8	0.1	0.2	1.02	0.41	0.63	13	3	3	8	2	2
N OCTANE	0.5	0.0	0.1	0.64	0.00	0.32	8	0	2	5	0	1
223MC6	0.1	0.0	0.0	0.13	0.00	0.00	2	0	0	1	0	0
ETCYHEXANE	0.2	0.0	0.0	0.26	0.00	0.00	3	0	0	2	0	0
ET BENZENE	0.7	0.1	0.1	0.90	0.41	0.32	11	2	2	7	1	1
M+PXYLENE	2.6	0.4	0.3	3.33	1.63	0.95	40	9	5	25	6	3
244MC8	0.4	0.1	0.1	0.51	0.41	0.32	7	3	2	4	2	1
O XYLENE	1.1	0.2	0.1	1.41	0.81	0.32	17	5	2	10	3	1
N NONANE	0.3	0.1	0.0	0.38	0.41	0.00	5	3	0	3	2	0
IPRBENZENE	0.3	0.1	0.0	0.38	0.41	0.00	5	2	0	3	1	0
NPRBENZENE	0.2	0.0	0.0	0.26	0.00	0.00	3	0	0	2	0	0
1M3ETBENZ	0.8	0.0	0.0	1.02	0.00	0.00	12	0	0	8	0	0
135MEBENZ	0.3	0.0	0.0	0.38	0.00	0.00	5	0	0	3	0	0
1M2E1BENZ	0.4	0.0	0.0	0.51	0.00	0.00	6	0	0	4	0	0
124MBENZ	1.0	0.1	0.0	1.28	0.41	0.00	15	2	0	10	1	0
SBUBENZENE	0.2	0.0	0.0	0.26	0.00	0.00	3	0	0	2	0	0
N DECANE	0.1	0.0	0.0	0.13	0.00	0.00	2	0	0	1	0	0
123MBENZ	0.2	0.0	0.0	0.26	0.00	0.00	3	0	0	2	0	0
INDANE	0.1	0.0	0.0	0.13	0.00	0.00	2	0	0	1	0	0
13DEBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.2	0.0	0.0	0.26	0.00	0.00	3	0	0	2	0	0
1M3PRBENZ	0.2	0.0	0.0	0.26	0.00	0.00	3	0	0	2	0	0
UNKNOWNS	3.4	0.3	0.4	4.35	1.22	1.26	52	7	6	33	4	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70902
DATE RUN: 08 25 76
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8K11Y148568 DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	98.8	29.0	40.0
GC PPMC	89.6	23.5	33.9

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	15.0	9.3	12.0	16.74	39.57	35.40	204	167	156	127	104	97
SATURATES	40.5	12.2	16.8	45.20	51.92	49.56	493	196	196	306	122	122
OLEFINS	7.9	0.6	2.0	8.82	2.55	5.90	94	9	23	58	6	14
ACETYLENE	1.6	0.0	0.0	1.79	0.00	0.00	18	0	0	11	0	0
NAPTHENES	1.5	0.2	0.5	1.67	0.85	1.47	18	3	6	11	2	4
AROMATICS	18.6	1.2	1.9	20.76	5.11	5.60	208	18	20	129	11	13
BENZENE	1.8	0.3	0.5	2.01	1.28	1.47	20	4	5	12	3	3
TOLUENE	6.0	0.7	0.9	6.70	2.98	2.65	67	10	10	42	6	6
C8+AROM	10.8	0.2	0.5	12.05	0.85	1.47	122	3	5	76	2	3
UNKNOWN	4.5	0.0	0.7	0.00	0.00	0.00	51	0	8	32	0	5
INDIVIDUAL COMPONENTS												
METHANE	15.0	9.3	12.0	16.74	39.57	35.40	204	167	156	127	104	97
ETHYLENE	2.7	0.3	0.9	3.01	1.28	2.65	32	5	10	20	3	6
ETHANE	2.1	1.9	2.0	2.34	8.09	5.90	27	32	24	17	20	15
ACETYLENE	1.6	0.0	0.0	1.79	0.00	0.00	18	0	0	11	0	0
C3 + C3=	1.4	0.1	0.4	1.56	0.43	1.18	17	2	5	10	1	3
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.7	0.4	0.6	0.78	1.70	1.77	9	7	7	5	4	4
B1 + IB	0.8	0.0	0.2	0.89	0.00	0.59	10	0	2	6	0	1
NC4 +B=1=3	4.7	2.6	3.8	5.25	11.06	11.21	58	42	45	36	26	28
TBUTENE-2	0.3	0.1	0.1	0.33	0.43	0.29	4	2	1	2	1	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.1	0.22	0.00	0.29	2	0	1	1	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	4.3	2.1	2.8	4.80	8.94	8.26	53	34	33	33	21	20
PENTENE-1	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.2	0.0	0.1	0.22	0.00	0.29	2	0	1	1	0	1
NPENTANE	0.8	0.4	0.5	0.89	1.70	1.47	10	6	6	6	4	4
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70902
DATE RUN: 06 25 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: MYER FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
TPENT-2	0.3	0.0	0.1	0.33	0.00	0.29	4	0	1	2	0	1
CISPENT-2	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.6	0.1	0.1	0.67	0.43	0.29	7	2	1	4	1	1
22MBUTANE	0.0	0.1	0.0	0.00	0.43	0.00	0	2	0	0	1	0
CYPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.1	0.11	0.00	0.29	1	0	1	1	0	1
23MBUTANE	0.7	0.2	0.3	0.78	0.85	0.88	9	3	4	5	2	2
2MPENTANE	1.8	0.6	0.7	2.01	2.55	2.06	22	10	8	14	6	5
3MPENTANE	1.0	0.3	0.4	1.12	1.28	1.18	12	5	5	8	3	3
HEXENE-1	0.3	0.0	0.0	0.33	0.00	0.00	4	0	0	2	0	0
N HEXANE	0.7	0.2	0.3	0.78	0.85	0.88	9	3	4	5	2	2
TC6=3,=2	0.6	0.0	0.0	0.67	0.00	0.00	7	0	0	4	0	0
CC6=3	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
MCYP43M2C5	0.7	0.2	0.2	0.78	0.85	0.59	8	3	2	5	2	1
24MPENTANE	1.5	0.3	0.4	1.67	1.28	1.18	18	5	5	11	3	3
BENZENE	1.8	0.3	0.5	2.01	1.28	1.47	20	4	5	12	3	3
CYHEXANE	0.2	0.0	0.1	0.22	0.00	0.29	2	0	1	1	0	1
2MC6+23MC5	3.4	0.5	0.8	3.79	2.13	2.36	41	8	9	26	5	6
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.2	0.2	0.3	1.34	0.85	0.88	15	3	3	9	2	2
224MPENTAN	7.5	1.5	2.3	8.37	6.38	6.76	91	24	27	56	15	17
NHEPTANE	1.2	0.1	0.2	1.34	0.43	0.59	15	2	2	9	1	1
MCYHEXANE	0.3	0.0	0.1	0.33	0.00	0.29	4	0	1	2	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+23M	1.6	0.2	0.3	1.79	0.85	0.88	19	3	3	12	2	2
234MC5	1.8	0.2	0.3	2.01	0.85	0.88	22	3	3	14	2	2
TOLUENE	6.0	0.7	0.9	6.70	2.98	2.65	67	10	10	42	6	6
23MC6+4MC7	0.9	0.1	0.1	1.00	0.43	0.29	11	2	1	7	1	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70902
DATE RUN: 06 25 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8H11Y148568 DRIVER: HYLK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.1	0.1	0.2	1.23	0.43	0.59	13	2	2	8	1	1
3MHEPTANE	1.0	0.1	0.2	1.12	0.43	0.59	12	2	2	8	1	1
255MC6	0.9	0.1	0.1	1.00	0.43	0.29	11	2	1	7	1	1
N OCTANE	0.6	0.0	0.1	0.67	0.00	0.29	7	0	1	5	0	1
223MC6	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.2	0.0	0.0	0.22	0.00	0.00	2	0	0	1	0	0
ET BENZENE	0.9	0.0	0.1	1.00	0.00	0.29	10	0	1	6	0	1
M+PXYLENE	3.5	0.1	0.3	3.91	0.43	0.88	39	1	3	24	1	2
2+4MC8	0.5	0.0	0.1	0.56	0.00	0.29	6	0	1	4	0	1
O XYLENE	1.4	0.1	0.1	1.56	0.43	0.29	16	1	1	10	1	1
N NONANE	0.3	0.0	0.0	0.33	0.00	0.00	4	0	0	2	0	0
IPRBENZENE	0.3	0.0	0.0	0.33	0.00	0.00	3	0	0	2	0	0
NPRBENZENE	0.2	0.0	0.0	0.22	0.00	0.00	2	0	0	1	0	0
1M3ETBENZ	1.0	0.0	0.0	1.12	0.00	0.00	11	0	0	7	0	0
135MEBENZ	0.4	0.0	0.0	0.45	0.00	0.00	5	0	0	3	0	0
1M2ETBENZ	0.4	0.0	0.0	0.45	0.00	0.00	5	0	0	3	0	0
124MBENZ	1.2	0.0	0.0	1.34	0.00	0.00	14	0	0	8	0	0
SBUBENZENE	0.2	0.0	0.0	0.22	0.00	0.00	2	0	0	1	0	0
N DECANE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.4	0.0	0.0	0.45	0.00	0.00	5	0	0	3	0	0
INDANE	0.2	0.0	0.0	0.22	0.00	0.00	2	0	0	1	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MBUBENZENE	0.3	0.0	0.0	0.33	0.00	0.00	3	0	0	2	0	0
1M3PRBENZ	0.4	0.0	0.0	0.45	0.00	0.00	5	0	0	3	0	0
UNKNOWNS	4.5	0.0	0.7	5.02	0.00	2.06	51	0	8	32	0	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70903
DATE RUN: 10 24 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: BRIIY148568 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	62.5	19.9	27.5
GC PPMC	45.7	18.5	25.4

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	12.0	8.4	10.2	26.26	45.41	40.16	204	149	131	127	93	81
SATURATES	20.6	8.8	12.6	45.06	47.57	49.61	313	140	145	195	87	90
OLEFINS	3.1	0.5	1.1	6.78	2.70	4.33	46	8	12	29	5	8
ACETYLENE	0.5	0.0	0.0	1.09	0.00	0.00	7	0	0	4	0	0
NAPTHENES	0.6	0.1	0.2	1.31	0.54	0.79	9	2	2	6	1	1
AROMATICS	6.5	0.4	0.9	14.22	2.16	3.54	91	6	9	56	4	6
BENZENE	1.1	0.2	0.4	2.41	1.08	1.57	15	3	4	9	2	3
TOLUENE	2.5	0.2	0.3	5.47	1.08	1.18	35	3	3	22	2	2
C8+AROM	2.9	0.0	0.2	6.35	0.00	0.79	41	0	2	26	0	1
UNKNOWN	2.4	0.3	0.4	0.00	0.00	0.00	34	4	4	21	3	3
INDIVIDUAL COMPONENTS												
METHANE	12.0	8.4	10.2	26.26	45.41	40.16	204	149	131	127	93	81
ETHYLENE	1.5	0.3	0.8	3.28	1.62	3.15	22	5	9	14	3	6
ETHANE	1.4	1.7	1.8	3.06	9.19	7.09	22	28	22	14	18	13
ACETYLENE	0.5	0.0	0.0	1.09	0.00	0.00	7	0	0	4	0	0
C3 + C3=	0.7	0.0	0.1	1.53	0.00	0.39	10	0	1	6	0	1
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.3	0.2	0.3	0.66	1.08	1.18	5	3	3	3	2	2
B1 + IB	0.2	0.0	0.0	0.44	0.00	0.00	3	0	0	2	0	0
NC4 +B=1=3	2.1	1.3	2.3	4.60	7.03	9.06	32	21	27	20	13	17
TBUTENE-2	0.1	0.0	0.0	0.22	0.00	0.00	1	0	0	1	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.1	0.0	0.0	0.22	0.00	0.00	1	0	0	1	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOPENTANE	1.9	1.2	1.8	4.16	6.49	7.09	29	19	21	18	12	13
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	0.4	0.2	0.3	0.86	1.08	1.18	6	3	3	4	2	2
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NU.: 70903
DATE RUN: 10 24 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT-2	0.1	0.0	0.0	0.22	0.00	0.00	1	0	0	1	0	0
CISPENT-2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-2	0.2	0.2	0.2	0.44	1.08	0.79	3	3	2	2	2	1
22MBUTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MPLNTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.0	0.22	0.00	0.00	1	0	0	1	0	0
23MBUTANE	0.3	0.2	0.2	0.66	1.08	0.79	5	3	2	3	2	1
2MPENTANE	0.9	0.5	0.5	1.97	2.70	1.97	14	8	6	9	5	4
3MPENTANE	0.5	0.2	0.3	1.09	1.08	1.18	8	3	3	5	2	2
HEXENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
N HEXANE	0.3	0.1	0.2	0.66	0.54	0.79	5	2	2	3	1	1
TC6=3,=2	0.2	0.0	0.0	0.44	0.00	0.00	3	0	0	2	0	0
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	0.3	0.1	0.2	0.66	0.54	0.79	4	2	2	3	1	1
24MPENTANE	0.8	0.3	0.4	1.75	1.62	1.57	12	5	5	8	3	3
BENZENE	1.1	0.2	0.4	2.41	1.08	1.57	15	3	4	9	2	3
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	1.9	0.4	0.7	4.16	2.16	2.76	29	6	8	18	4	5
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.6	0.1	0.2	1.31	0.54	0.79	9	2	2	6	1	1
224MPLNTAN	4.1	1.4	2.0	8.97	7.57	7.87	62	22	23	39	14	14
NHEPTANE	0.5	0.1	0.1	1.09	0.54	0.39	8	2	1	5	1	1
MCYHEXANE	0.1	0.0	0.0	0.22	0.00	0.00	1	0	0	1	0	0
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+23M	0.8	0.2	0.3	1.75	1.08	1.18	12	3	3	8	2	2
234MC5	0.9	0.2	0.3	1.97	1.08	1.18	14	3	3	8	2	2
TOLUENE	2.5	0.2	0.3	5.47	1.08	1.18	35	3	3	22	2	2
23MC6+4MC7	0.5	0.1	0.3	1.09	0.54	1.18	8	2	3	5	1	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70903
DATE RUN: 10 24 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
34MHEXANE		0.5	0.1	0.1		1.09	0.54	0.39		8	2	1		5	1	1
3MHEPTANE		0.5	0.1	0.1		1.09	0.54	0.39		8	2	1		5	1	1
255MC6		0.5	0.1	0.1		1.09	0.54	0.39		8	2	1		5	1	1
N OCTANE		0.3	0.1	0.1		0.66	0.54	0.39		5	2	1		3	1	1
223MC6		0.1	0.0	0.1		0.22	0.00	0.39		2	0	1		1	0	1
ETCYHEXANE		0.1	0.0	0.0		0.22	0.00	0.00		1	0	0		1	0	0
ET BENZENE		0.3	0.0	0.0		0.66	0.00	0.00		4	0	0		3	0	0
M+PXYLENE		1.1	0.0	0.1		2.41	0.00	0.39		15	0	1		10	0	1
2+4MC8		0.3	0.0	0.1		0.66	0.00	0.39		5	0	1		3	0	1
O XYLENE		0.4	0.0	0.1		0.88	0.00	0.39		6	0	1		3	0	1
N NONANE		0.2	0.0	0.0		0.44	0.00	0.00		3	0	0		2	0	0
IPRBENZENE		0.1	0.0	0.0		0.22	0.00	0.00		1	0	0		1	0	0
NPRBENZENE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
1M3ETHENZ		0.3	0.0	0.0		0.66	0.00	0.00		4	0	0		3	0	0
135MEBENZ		0.1	0.0	0.0		0.22	0.00	0.00		1	0	0		1	0	0
1M2ETBENZ		0.2	0.0	0.0		0.44	0.00	0.00		3	0	0		2	0	0
124MBENZ		0.3	0.0	0.0		0.66	0.00	0.00		4	0	0		3	0	0
SBUBENZENE		0.1	0.0	0.0		0.22	0.00	0.00		1	0	0		1	0	0
N DECANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
123MBENZ		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
INDANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
13EBENZENE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
NBUBENZENE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
1M3PRBENZ		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
UNKNOWNS		2.4	0.3	0.4		5.25	1.62	1.57		34	4	4		21	3	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70911
DATE RUN: 08 24 78 AIR CONDITIONER USED
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	82.2	29.1	40.5
GC PPMC	79.9	23.9	33.6

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	18.5	10.6	13.6	23.15	44.35	40.48	214	169	168	133	105	105
SATURATES	30.3	10.8	14.8	37.92	45.19	44.05	313	154	164	195	96	102
OLEFINS	6.7	0.7	2.1	8.39	2.93	6.25	68	10	23	42	6	14
ACETYLENE	1.1	0.0	0.0	1.38	0.00	0.00	10	0	0	6	0	0
NAPTHENES	1.1	0.1	0.2	1.38	0.42	0.60	11	1	2	7	1	1
AROMATICS	17.3	1.1	2.8	21.65	4.60	8.33	164	14	28	102	9	18
BENZENE	2.1	0.4	0.9	2.63	1.67	2.68	20	5	9	12	3	6
TOLUENE	4.5	0.4	0.9	5.63	1.67	2.68	43	5	9	27	3	6
C8+AROM	10.7	0.3	1.0	13.39	1.26	2.98	103	4	10	64	2	6
UNKNOWN	4.9	0.6	0.1	0.00	0.00	0.00	47	8	1	29	5	1
INDIVIDUAL COMPONENTS												
METHANE	18.5	10.6	13.6	23.15	44.35	40.48	214	169	168	133	105	105
ETHYLENE	2.8	0.3	1.3	3.50	1.26	3.87	28	4	14	18	3	9
ETHANE	2.1	1.8	2.1	2.63	7.53	6.25	23	27	24	14	17	15
ACETYLENE	1.1	0.0	0.0	1.38	0.00	0.00	10	0	0	6	0	0
C3 + C3=	1.4	0.1	0.3	1.75	0.42	0.89	14	1	3	9	1	2
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.6	0.5	0.5	0.75	2.09	1.49	6	7	6	4	4	3
B1 + IB	0.8	0.0	0.1	1.00	0.00	0.30	8	0	1	5	0	1
NC4 +B=1=3	4.0	2.5	2.9	5.01	10.46	8.63	42	36	32	26	22	20
TBUTENE-2	0.3	0.1	0.1	0.38	0.42	0.30	3	1	1	2	1	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.1	0.1	0.25	0.42	0.30	2	1	1	1	1	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	3.5	1.9	2.3	4.38	7.95	6.85	36	27	26	23	17	16
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
NPENTANE	0.6	0.4	0.4	0.75	1.67	1.19	6	6	4	4	4	3
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70911
DATE RUN: 08 24 78 AIR CONDITIONER USED
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.2	0.0	0.1	0.25	0.00	0.30	2	0	1	1	0	1
CISPENT-2	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.4	0.1	0.1	0.50	0.42	0.30	4	1	1	3	1	1
22MBUTANE	0.2	0.0	0.0	0.25	0.00	0.00	2	0	0	1	0	0
CYPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
23MBUTANE	0.6	0.2	0.3	0.75	0.84	0.89	6	3	3	4	2	2
2MPENTANE	1.0	0.5	0.8	1.25	2.09	2.38	10	7	9	6	4	6
3MPENTANE	0.6	0.2	0.3	0.75	0.84	0.89	6	3	3	4	2	2
HEXENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
N HEXANE	0.4	0.1	0.2	0.50	0.42	0.60	4	1	2	3	1	1
TC6=3,=2	0.2	0.0	0.0	0.25	0.00	0.00	2	0	0	1	0	0
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
MCYP43M2C5	0.6	0.1	0.2	0.75	0.42	0.60	6	1	2	4	1	1
24MPENTANE	1.1	0.2	0.4	1.38	0.84	1.19	11	3	4	7	2	3
BENZENE	2.1	0.4	0.9	2.63	1.67	2.68	20	5	9	12	3	6
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	2.4	0.4	0.7	3.00	1.67	2.08	25	6	8	15	4	5
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.8	0.1	0.2	1.00	0.42	0.60	8	1	2	5	1	1
224MPENTAN	5.5	1.2	2.0	6.88	5.02	5.95	57	17	22	35	11	14
NHEPTANE	0.7	0.1	0.3	0.88	0.42	0.89	7	1	3	4	1	2
MCYHEXANE	0.2	0.0	0.0	0.25	0.00	0.00	2	0	0	1	0	0
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.1	0.1	0.3	1.38	0.42	0.89	11	1	3	7	1	2
234MC5	1.3	0.2	0.3	1.63	0.84	0.89	13	3	3	8	2	2
TOLUENE	4.5	0.4	0.9	5.63	1.67	2.68	43	5	9	27	3	6
23MC6+4MC7	0.6	0.1	0.1	0.75	0.42	0.30	6	1	1	4	1	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS.

TEST NO.: 70911
DATE RUN: 08 24 78 AIR CONDITIONER USED
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	0.6	0.1	0.2	1.00	0.42	0.60	8	1	2	5	1	1
3MHEPTANE	0.7	0.1	0.1	0.88	0.42	0.30	7	1	1	4	1	1
255MC6	0.6	0.1	0.1	0.75	0.42	0.30	6	1	1	4	1	1
N OCTANE	0.4	0.0	0.1	0.50	0.00	0.30	4	0	1	3	0	1
223MC6	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.2	0.0	0.0	0.25	0.00	0.00	2	0	0	1	0	0
ET BENZENE	0.7	0.0	0.1	0.88	0.00	0.30	7	0	1	4	0	1
M+PXYLENE	3.2	0.2	0.4	4.01	0.84	1.19	31	3	4	19	2	3
244MC8	0.4	0.0	0.1	0.50	0.00	0.30	4	0	1	3	0	1
O XYLENE	1.3	0.1	0.2	1.63	0.42	0.60	12	1	2	8	1	1
N NONANE	0.2	0.0	0.1	0.25	0.00	0.30	2	0	1	1	0	1
IPRBENZENE	0.2	0.0	0.0	0.25	0.00	0.00	2	0	0	1	0	0
NPRBENZENE	0.2	0.0	0.0	0.25	0.00	0.00	2	0	0	1	0	0
1M3ETBENZ	1.2	0.0	0.1	1.50	0.00	0.30	12	0	1	7	0	1
135MEBENZ	0.5	0.0	0.0	0.63	0.00	0.00	5	0	0	3	0	0
1M2ETBENZ	0.4	0.0	0.1	0.50	0.00	0.30	4	0	1	2	0	1
124MBENZ	1.7	0.0	0.1	2.13	0.00	0.30	16	0	1	10	0	1
SBUBENZENE	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.4	0.0	0.0	0.50	0.00	0.00	4	0	0	2	0	0
INDANE	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.3	0.0	0.0	0.38	0.00	0.00	3	0	0	2	0	0
1M3PRBENZ	0.4	0.0	0.0	0.50	0.00	0.00	4	0	0	2	0	0
UNKNOWNS	4.9	0.6	0.1	6.13	2.51	0.30	47	8	1	29	5	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70912
DATE RUN: 10 25 78 AIR CONDITIONER USED
CAR: 1978 FORD PINTO CAL 3 WAY VIN: BR11Y148568 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	73.9	20.7	42.1
GC PPMC	66.3	16.2	35.1

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	16.1	8.1	12.6	24.28	50.00	35.90						
SATURATES	24.5	6.7	17.8	36.95	41.36	50.71	229	161	181	142	100	112
OLEFINS	6.2	0.4	1.6	9.35	2.47	4.56	312	119	228	194	74	142
ACETYLENE	1.1	0.0	0.0	1.66	0.00	0.00	77	7	20	48	4	12
NAPTHENES	1.1	0.1	0.2	1.66	0.62	0.57	13	0	0	8	0	0
							14	2	3	9	1	2
AROMATICS	13.2	0.3	2.2	19.91	1.85	6.27						
BENZENE	2.1	0.2	0.6	3.17	1.23	1.71	154	5	26	96	3	16
TOLUENE	4.2	0.1	0.9	6.33	0.62	2.56	24	3	7	15	2	4
C8+AROM	6.9	0.0	0.7	10.41	0.00	1.99	49	2	11	30	1	7
UNKNOWN	4.1	0.6	0.7	0.00	0.00	0.00	82	0	8	51	0	5
							49	10	8	30	6	5
INDIVIDUAL COMPONENTS												
METHANE	16.1	8.1	12.6	24.28	50.00	35.90						
ETHYLENE	2.9	0.3	1.0	4.37	1.85	2.85	229	161	181	142	100	112
ETHANE	1.5	1.5	1.6	2.26	9.26	4.56	36	5	13	22	3	8
ACETYLENE	1.1	0.0	0.0	1.66	0.00	0.00	20	28	21	12	17	13
C3 + C3=	1.4	0.1	0.3	2.11	0.62	0.85	13	0	0	8	0	0
							17	2	4	11	1	2
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.3	0.2	0.6	0.45	1.23	1.71	4	4	8	2	2	5
B1 + IB	0.6	0.0	0.0	0.90	0.00	0.00	7	0	0	5	0	0
NC4 +B=1=3	2.7	1.5	4.8	4.07	9.26	13.68	35	27	62	22	17	39
TBUTENE-2	0.2	0.0	0.1	0.30	0.00	0.28	2	0	1	2	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.1	0.0	0.1	0.15	0.00	0.28	1	0	1	1	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.15	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	2.2	0.9	2.8	3.32	5.56	7.98	28	16	36	17	10	22
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	0.5	0.2	0.4	0.75	1.23	1.14	6	4	5	4	2	3
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70912
DATE RUN: 10 25 78 AIR CONDITIONER USED
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.2	0.0	0.0	0.30	0.00	0.00	2	0	0	2	0	0
CISPENT-2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-2	0.3	0.0	0.1	0.45	0.00	0.28	4	0	1	2	0	1
22MBUTANE	0.0	0.1	0.1	0.00	0.62	0.28	0	2	1	0	1	1
CYPENTENE	0.1	0.0	0.0	0.15	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.0	0.15	0.00	0.00	1	0	0	1	0	0
23MBUTANE	0.4	0.1	0.3	0.60	0.62	0.85	5	2	4	3	1	2
2MPENTANE	0.7	0.2	0.5	1.06	1.23	1.42	9	4	6	6	2	4
3MPENTANE	0.3	0.1	0.4	0.45	0.62	1.14	4	2	5	2	1	3
HEXENE-1	0.1	0.0	0.0	0.15	0.00	0.00	1	0	0	1	0	0
N HEXANE	0.3	0.1	0.2	0.45	0.62	0.57	4	2	3	2	1	2
TC6=3,=2	0.2	0.0	0.0	0.30	0.00	0.00	2	0	0	2	0	0
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP4,3M2C5	0.5	0.1	0.2	0.75	0.62	0.57	6	2	3	4	1	2
24MPENTANE	0.9	0.1	0.5	1.36	0.62	1.42	11	2	6	7	1	4
BENZENE	2.1	0.2	0.6	3.17	1.23	1.71	24	3	7	15	2	4
CYHEXANE	0.1	0.0	0.0	0.15	0.00	0.00	1	0	0	1	0	0
2MC6+23MC5	2.2	0.2	0.9	3.32	1.23	2.56	28	4	12	17	2	7
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.8	0.1	0.3	1.21	0.62	0.85	10	2	4	6	1	2
224MPENTAN	4.9	0.8	2.4	7.39	4.94	6.84	62	14	31	39	9	19
NHEPTANE	0.7	0.1	0.2	1.06	0.62	0.57	9	2	3	6	1	2
MCYHEXANE	0.2	0.0	0.0	0.30	0.00	0.00	2	0	0	2	0	0
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.1	0.1	0.3	1.66	0.62	0.85	14	2	4	9	1	2
234MC5	1.2	0.1	0.4	1.81	0.62	1.14	15	2	5	9	1	3
TOLUENE	4.2	0.1	0.9	6.33	0.62	2.56	49	2	11	30	1	7
23MC6+4MC7	0.6	0.1	0.2	0.90	0.62	0.57	8	2	3	5	1	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 70912
DATE RUN: 10 25 78 AIR CONDITIONER USED
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148566 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	0.7	0.1	0.2	1.06	0.62	0.57	9	2	3	6	1	2
3MHEPTANE	0.6	0.1	0.2	0.90	0.62	0.57	8	2	3	5	1	2
25DMC6	0.6	0.0	0.2	0.90	0.00	0.57	6	0	3	5	0	2
N OCTANE	0.4	0.0	0.1	0.60	0.00	0.28	5	0	1	3	0	1
223MC6	0.1	0.0	0.0	0.15	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.2	0.0	0.0	0.30	0.00	0.00	2	0	0	2	0	0
ET BENZENE	0.6	0.0	0.1	0.90	0.00	0.26	7	0	1	4	0	1
M+PXYLENE	2.4	0.0	0.3	3.62	0.00	0.85	28	0	4	18	0	2
244MC8	0.4	0.0	0.1	0.60	0.00	0.28	5	0	1	3	0	1
O XYLENE	1.0	0.0	0.1	1.51	0.00	0.28	12	0	1	7	0	1
N NONANE	0.3	0.0	0.1	0.45	0.00	0.28	4	0	1	2	0	1
IPRBENZENE	0.2	0.0	0.1	0.30	0.00	0.28	2	0	1	1	0	1
NPRBENZENE	0.1	0.0	0.0	0.15	0.00	0.00	1	0	0	1	0	0
1M3ETBENZ	0.7	0.0	0.0	1.06	0.00	0.00	8	0	0	5	0	0
135MEBENZ	0.3	0.0	0.1	0.45	0.00	0.28	4	0	1	2	0	1
1M2ETBENZ	0.4	0.0	0.0	0.60	0.00	0.00	5	0	0	3	0	0
124MBENZ	0.8	0.0	0.0	1.21	0.00	0.00	9	0	0	6	0	0
SBUBENZENE	0.1	0.0	0.0	0.15	0.00	0.00	1	0	0	1	0	0
N DECANE	0.1	0.0	0.0	0.15	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.2	0.0	0.0	0.30	0.00	0.00	2	0	0	1	0	0
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1M3PRBENZ	0.1	0.0	0.0	0.15	0.00	0.00	1	0	0	1	0	0
UNKNOWNS	4.1	0.6	0.7	6.18	3.70	1.99	49	10	8	30	6	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 71101
DATE RUN: 10 26 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: AR11Y146568 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	258.9	24.7	57.3
GC PPMC	258.8	22.5	54.9

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	15.9	8.3	16.2	6.14	36.89	29.51	222	154	213	138	96	132
SATURATES	119.4	11.3	29.3	46.14	50.22	53.37	1491	188	345	926	117	215
OLEFINS	14.3	0.8	3.4	5.53	3.56	6.19	174	13	39	108	8	24
ACETYLENE	4.8	0.0	0.0	1.85	0.00	0.00	54	0	0	34	0	0
NAPTHENES	4.8	0.1	0.6	1.85	0.44	1.09	59	2	7	36	1	4
AROMATICS	70.4	1.3	4.4	27.20	5.78	8.01	806	20	48	501	12	30
BENZENE	4.1	0.4	1.2	1.58	1.78	2.19	46	6	13	29	4	8
TOLUENE	21.3	0.5	1.6	8.23	2.22	2.91	244	8	17	152	5	11
C8+AROM	45.0	0.4	1.6	17.39	1.78	2.91	524	6	18	326	4	11
UNKNOWN	29.2	0.7	1.0	0.00	0.00	0.00	341	11	11	212	7	7
INDIVIDUAL COMPONENTS												
METHANE	15.9	8.3	16.2	6.14	36.89	29.51	222	154	213	138	96	132
ETHYLENE	4.0	0.7	2.2	1.55	3.11	4.01	49	11	25	30	7	16
ETHANE	1.9	1.7	2.2	0.73	7.56	4.01	25	30	27	15	18	17
ACETYLENE	4.8	0.0	0.0	1.85	0.00	0.00	54	0	0	34	0	0
C3 + C3=	1.6	0.1	0.5	0.62	0.44	0.91	20	2	6	12	1	4
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.1	0.3	1.1	0.43	1.33	2.00	14	5	13	9	3	8
B1 + IB	0.6	0.0	0.0	0.23	0.00	0.00	7	0	0	5	0	0
NC4 +B=1=3	10.4	2.3	8.2	4.02	10.22	14.94	131	39	98	82	24	61
TBUTENE-2	0.4	0.0	0.2	0.15	0.00	0.36	5	0	2	3	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.3	0.0	0.1	0.12	0.00	0.18	4	0	1	2	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	10.1	1.5	4.8	3.90	6.67	8.74	127	25	57	79	16	35
PENTENE-1	0.3	0.0	0.0	0.12	0.00	0.00	4	0	0	2	0	0
2MBUT-1	0.6	0.0	0.0	0.23	0.00	0.00	7	0	0	5	0	0
NPENTANE	1.8	0.3	0.7	0.70	1.33	1.28	23	5	8	14	3	5
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 71101
DATE RUN: 10 26 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.0	0.0	0.1	0.39	0.00	0.18	12	0	1	8	0	1
CISPENT-2	0.5	0.0	0.0	0.19	0.00	0.00	6	0	0	4	0	0
2MBUT-2	1.8	0.0	0.2	0.70	0.00	0.36	22	0	2	14	0	1
22MBUTANE	0.1	0.4	0.2	0.04	1.78	0.36	1	7	2	1	4	1
CYPENTENE	0.2	0.0	0.0	0.08	0.00	0.00	2	0	0	1	0	0
3MPENTENE	0.2	0.0	0.0	0.08	0.00	0.00	2	0	0	2	0	0
CYPENTANE	0.2	0.0	0.1	0.08	0.00	0.18	2	0	1	2	0	1
23MBUTANE	2.1	0.2	0.5	0.81	0.89	0.91	26	3	6	16	2	4
2MPENTANE	4.5	0.5	0.9	1.74	2.22	1.64	56	8	11	35	5	7
3MPENTANE	2.6	0.2	0.6	1.00	0.89	1.09	32	3	7	20	2	4
HEXENE-1	0.5	0.0	0.0	0.19	0.00	0.00	6	0	0	4	0	0
N HEXANE	1.8	0.1	0.4	0.70	0.44	0.73	22	2	5	14	1	3
TC6=3,=2	1.5	0.0	0.1	0.58	0.00	0.18	18	0	1	11	0	1
CC6=3	0.3	0.0	0.0	0.12	0.00	0.00	4	0	0	2	0	0
2MPENTENE2	0.4	0.0	0.0	0.15	0.00	0.00	5	0	0	3	0	0
MCYP43M2C5	2.0	0.1	0.3	0.77	0.44	0.55	24	2	3	15	1	2
24MPENTANE	4.7	0.3	0.8	1.82	1.33	1.46	58	5	9	36	3	6
BENZENE	4.1	0.4	1.2	1.58	1.78	2.19	46	6	13	29	4	8
CYHLXANE	0.5	0.0	0.0	0.19	0.00	0.00	6	0	0	4	0	0
2MC6+23MC5	11.4	0.5	1.5	4.40	2.22	2.73	142	8	18	88	5	11
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.9	0.2	0.5	1.51	0.89	0.91	49	3	6	30	2	4
224MPENTAN	24.1	1.7	3.8	9.31	7.56	6.92	299	28	45	186	17	28
MHEPTANE	4.0	0.1	0.3	1.55	0.44	0.55	50	2	4	31	1	2
MCYHEXANE	1.0	0.0	0.1	0.39	0.00	0.18	12	0	1	8	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	6.0	0.2	0.6	2.32	0.89	1.09	74	3	7	46	2	4
234MC5	7.1	0.2	0.6	2.74	0.89	1.09	88	3	7	55	2	4
TOLUENE	21.3	0.5	1.6	8.23	2.22	2.91	244	8	17	152	5	11
23MC6+4MC7	3.2	0.1	0.3	1.24	0.44	0.55	40	2	4	25	1	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 78101
DATE RUN: 10 26 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y140568 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	4.2	0.1	0.3	1.62	0.44	0.55	52	2	4	32	1	2
3MHEPTANE	3.8	0.1	0.3	1.47	0.44	0.55	47	2	4	29	1	2
255MC6	3.5	0.1	0.3	1.35	0.44	0.55	43	2	4	27	1	2
N OCTANE	2.6	0.1	0.1	1.00	0.44	0.18	32	2	1	20	1	1
223MC6	0.5	0.0	0.0	0.19	0.00	0.00	6	0	0	4	0	0
ETCYHEXANE	1.1	0.0	0.1	0.43	0.00	0.18	13	0	1	8	0	1
ET BENZENE	3.8	0.0	0.2	1.47	0.00	0.36	44	0	2	27	0	1
M+PXYLENE	15.1	0.1	0.6	5.83	0.44	1.09	174	2	7	108	1	4
244MC6	2.3	0.1	0.2	0.89	0.44	0.36	28	2	2	18	1	1
O XYLENE	6.2	0.1	0.3	2.40	0.44	0.55	72	2	3	44	1	2
N NONANE	1.4	0.0	0.1	0.54	0.00	0.18	17	0	1	11	0	1
IPRBENZENE	1.5	0.0	0.1	0.58	0.00	0.18	17	0	1	11	0	1
NPRBENZENE	1.1	0.0	0.0	0.43	0.00	0.00	13	0	0	8	0	0
1M3ETBENZ	4.5	0.0	0.1	1.74	0.00	0.18	52	0	1	32	0	1
135MEBENZ	1.9	0.0	0.1	0.73	0.00	0.18	22	0	1	14	0	1
1M2ETBENZ	1.8	0.1	0.1	0.70	0.44	0.18	21	2	1	13	1	1
124MBENZ	5.3	0.1	0.1	2.05	0.44	0.18	62	2	1	38	1	1
SBUBENZENE	0.5	0.0	0.0	0.19	0.00	0.00	6	0	0	4	0	0
N DECANE	0.3	0.0	0.0	0.12	0.00	0.00	4	0	0	2	0	0
123MBENZ	1.2	0.0	0.0	0.46	0.00	0.00	14	0	0	9	0	0
INDANE	0.2	0.0	0.0	0.08	0.00	0.00	2	0	0	1	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.8	0.0	0.0	0.31	0.00	0.00	9	0	0	6	0	0
1M3PRBENZ	1.1	0.0	0.0	0.43	0.00	0.00	13	0	0	8	0	0
UNKNOWNS	29.2	0.7	1.0	11.28	3.11	1.42	341	11	11	212	7	7

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 71102
DATE RUN: 11 01 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y146568 DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	106.0	38.7	68.5
GC PPMC	95.8	32.8	60.6

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	17.1	8.2	13.1	17.85	25.00	21.62	253	183	192	157	114	119
SATURATES	41.0	17.7	31.4	42.80	53.96	51.82	543	354	412	338	220	256
OLEFINS	12.6	2.4	6.6	13.15	7.32	10.89	163	47	85	101	29	53
ACETYLENE	1.3	0.0	0.0	1.36	0.00	0.00	16	0	0	10	0	0
NAPTHENES	1.6	0.5	0.9	1.67	1.52	1.49	21	10	12	13	6	7
AROMATICS	18.3	3.2	6.4	19.10	9.76	10.56	222	59	77	138	36	48
BENZENE	3.0	0.9	2.0	3.13	2.74	3.30	36	16	24	22	10	15
TOLUENE	5.7	0.9	2.1	5.95	2.74	3.47	69	17	25	43	10	16
C8+AROM	9.6	1.4	2.3	10.02	4.27	3.80	119	26	28	74	16	17
UNKNOWN	3.9	0.8	2.2	0.00	0.00	0.00	48	15	27	30	9	17
INDIVIDUAL COMPONENTS												
METHANE	17.1	8.2	13.1	17.85	25.00	21.62	253	183	192	157	114	119
ETHYLENE	6.3	2.2	4.6	6.58	6.71	7.59	82	43	59	51	27	37
ETHANE	1.9	1.6	1.7	1.98	4.68	2.81	26	33	23	16	21	15
ACETYLENE	1.3	0.0	0.0	1.36	0.00	0.00	16	0	0	10	0	0
C3 + C3=	2.3	0.1	1.1	2.40	0.50	1.82	30	2	14	18	1	9
C=C=C	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.5	0.3	0.6	0.52	0.91	0.99	7	6	8	4	4	5
B1 + IB	1.0	0.0	0.3	1.04	0.00	0.50	13	0	4	8	0	2
NC4 +B=1=3	4.3	2.0	5.4	4.49	6.10	8.91	58	40	72	36	25	45
TBUTENE-2	0.3	0.0	0.2	0.31	0.00	0.33	4	0	3	2	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.1	0.21	0.00	0.17	3	0	1	2	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	4.0	2.0	4.1	4.18	6.10	6.77	53	40	54	33	25	34
PENTENE-1	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.2	0.0	0.0	0.21	0.00	0.00	3	0	0	2	0	0
NPENTANE	0.7	0.3	0.6	0.73	0.91	0.99	9	6	8	6	4	5
2MB=1=3	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 71102
DATE RUN: 11 01 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
TPENT=2	0.3	0.0	0.1	0.31	0.00	0.17	4	0	1	2	0	1
CISPENT-2	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.5	0.1	0.2	0.52	0.30	0.33	6	2	3	4	1	2
22MBUTANE	0.2	0.1	0.0	0.21	0.30	0.00	3	2	0	2	1	0
CYPENTENE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
23MBUTANE	0.9	0.4	0.6	0.94	1.22	0.99	12	8	8	7	5	5
2MPENTANE	1.6	0.9	1.4	1.67	2.74	2.31	21	18	18	13	11	11
3MPENTANE	1.0	0.4	0.8	1.04	1.22	1.32	13	8	11	8	5	7
HEXENE-1	0.2	0.0	0.0	0.21	0.00	0.00	3	0	0	2	0	0
N HEXANE	0.6	0.2	0.5	0.63	0.61	0.83	8	4	7	5	2	4
TC6=3.=2	0.4	0.0	0.0	0.42	0.00	0.00	5	0	0	3	0	0
CC6=3	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
MCYP43M2C5	0.7	0.3	0.5	0.73	0.91	0.83	9	6	6	6	4	4
24MPENTANE	1.7	0.7	1.2	1.77	2.13	1.98	22	14	16	14	9	10
BENZENE	3.0	0.9	2.0	3.13	2.74	3.30	36	16	24	22	10	15
CYHEXANE	0.2	0.0	0.0	0.21	0.00	0.00	3	0	0	2	0	0
2MC6+23MC5	3.7	1.4	2.4	3.86	4.27	3.96	49	28	31	30	17	20
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.3	0.5	0.8	1.36	1.52	1.32	17	10	10	11	6	7
224MPENTAN	8.2	3.5	5.6	8.56	10.67	9.24	108	70	73	67	43	45
NHEPTANE	1.1	0.3	0.6	1.15	0.91	0.99	15	6	8	9	4	5
MCYHEXANE	0.3	0.1	0.2	0.31	0.30	0.33	4	2	3	2	1	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.7	0.6	1.0	1.77	1.83	1.66	22	12	13	14	7	8
234MC5	1.8	0.6	1.0	1.88	1.83	1.65	24	12	13	15	7	8
TOLUENE	5.7	0.9	2.1	5.95	2.74	3.47	69	17	25	43	10	16
23MC6+4MC7	0.9	0.3	0.5	0.94	0.91	0.83	12	6	7	7	4	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 71102
DATE RUN: 11 01 78
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: MYER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.1	0.4	0.6	1.15	1.22	0.99	14	8	8	9	5	5
3MHEPTANE	1.0	0.3	0.5	1.04	0.91	0.83	13	6	7	8	4	4
255MC6	1.0	0.4	0.6	1.04	1.22	0.99	13	8	8	8	5	5
N OCTANE	0.6	0.2	0.3	0.63	0.61	0.50	8	4	4	5	2	2
223MC6	0.1	0.0	0.1	0.10	0.00	0.17	1	0	1	1	0	1
ETCYHEXANE	0.3	0.1	0.2	0.31	0.30	0.33	4	2	3	2	1	2
ET BENZENE	0.8	0.1	0.2	0.84	0.30	0.33	10	2	2	6	1	2
M+PXYLENE	3.2	0.4	0.7	3.34	1.22	1.16	39	7	8	24	5	5
2+4MC8	0.6	0.2	0.3	0.63	0.61	0.50	8	4	4	5	2	2
O XYLENE	1.4	0.2	0.3	1.46	0.61	0.50	17	4	4	11	2	2
N NONANE	0.4	0.1	0.2	0.42	0.30	0.33	5	2	3	3	1	2
IPRBENZENE	0.4	0.1	0.2	0.42	0.30	0.33	5	2	2	3	1	2
NPRBENZENE	0.2	0.0	0.0	0.21	0.00	0.00	2	0	0	2	0	0
1M3ETBENZ	0.9	0.1	0.1	0.94	0.30	0.17	11	2	1	7	1	1
135MEBENZ	0.4	0.2	0.1	0.42	0.61	0.17	5	4	1	3	2	1
1M2ETBENZ	0.6	0.0	0.4	0.63	0.00	0.66	7	0	5	5	0	3
124MBENZ	1.1	0.2	0.2	1.15	0.61	0.33	14	4	2	8	2	2
SBUBENZENE	0.2	0.0	0.1	0.21	0.00	0.17	2	0	1	2	0	1
N DECANE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.2	0.1	0.0	0.21	0.30	0.00	2	2	0	2	1	0
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
UNKNOWNS	3.9	0.8	2.2	4.07	2.44	3.63	48	15	27	30	9	17

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 71111
DATE RUN: 10 27 78 AIR CONDITIONER USED
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	76.3	22.3	50.1
GC PPMC	74.7	21.6	40.7

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	15.8	10.1	14.9	21.15	46.76	36.61	212	169	229	132	105	143
SATURATES	31.2	8.7	17.2	41.77	40.28	42.26	374	130	237	233	81	147
OLEFINS	6.4	0.7	3.1	8.57	3.24	7.62	75	10	42	47	6	26
ACETYLENE	0.7	0.0	0.0	0.94	0.00	0.00	8	0	0	5	0	0
NAPTHENES	1.2	0.1	0.3	1.61	0.46	0.74	14	1	4	9	1	3
AROMATICS	14.7	1.1	4.3	19.68	5.09	10.57	162	15	54	101	9	34
BENZENE	2.3	0.6	1.5	3.08	2.78	3.69	25	8	19	16	5	12
TOLUENE	4.5	0.5	1.4	6.02	2.31	3.44	50	7	18	31	4	11
C8+AROM	7.9	0.0	1.4	10.58	0.00	3.44	88	0	18	55	0	11
UNKNOWN	4.7	0.9	0.9	0.00	0.00	0.00	53	13	12	33	8	7
INDIVIDUAL COMPONENTS												
METHANE	15.8	10.1	14.9	21.15	46.76	36.61	212	169	229	132	105	143
ETHYLENE	3.0	0.6	2.1	4.02	2.78	5.16	35	9	28	22	5	18
ETHANE	1.8	1.6	1.6	2.41	7.41	3.93	23	25	23	14	16	14
ACETYLENE	0.7	0.0	0.0	0.94	0.00	0.00	8	0	0	5	0	0
C3 + C3=	1.4	0.1	0.6	1.67	0.46	1.47	16	1	8	10	1	5
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.3	0.2	0.5	0.40	0.93	1.23	4	3	7	2	2	4
B1 + IB	0.6	0.0	0.0	0.80	0.00	0.00	7	0	0	4	0	0
NC4 +B=1=3	3.3	1.8	4.2	4.42	8.33	10.32	40	27	59	25	17	36
TBUTENE-2	0.2	0.0	0.2	0.27	0.00	0.49	2	0	3	1	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.1	0.0	0.1	0.13	0.00	0.25	1	0	1	1	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	2.8	1.2	2.5	3.75	5.56	6.14	34	18	35	21	11	22
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
NPENTANE	0.5	0.2	0.4	0.67	0.93	0.98	6	3	6	4	2	3
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 71111
DATE RUN: 10 27 78 AIR CONDITIONER USED
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
TPENT-2		0.2	0.0	0.0		0.27	0.00	0.00		2	0	0		1	0	0
CISPENT-2		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
2MBUT-2		0.3	0.0	0.1		0.40	0.00	0.25		4	0	1		2	0	1
22MBUTANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
CYPLNTENE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
3MPENTENE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
CYPENTANE		0.1	0.0	0.0		0.13	0.00	0.00		1	0	0		1	0	0
23MBUTANE		0.6	0.2	0.3		0.80	0.93	0.74		7	3	4		4	2	3
2MPENTANE		1.1	0.4	0.7		1.47	1.85	1.72		13	6	10		8	4	6
3MPENTANE		0.6	0.2	0.3		0.80	0.93	0.74		7	3	4		4	2	3
HEXENE-1		0.1	0.0	0.0		0.13	0.00	0.00		1	0	0		1	0	0
N HEXANE		0.5	0.1	0.2		0.67	0.46	0.49		6	1	3		4	1	2
TC6=3,=2		0.3	0.0	0.0		0.40	0.00	0.00		4	0	0		2	0	0
CC6=3		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
2MPENTENE2		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
MCYP43M2C5		0.6	0.1	0.2		0.80	0.46	0.49		7	1	3		4	1	2
24MPENTANE		1.2	0.2	0.5		1.61	0.93	1.23		14	3	7		9	2	4
BENZENE		2.3	0.6	1.5		3.08	2.78	3.69		25	8	19		16	5	12
CYHEXANE		0.1	0.0	0.0		0.13	0.00	0.00		1	0	0		1	0	0
2MC6+23MC5		2.7	0.4	0.9		3.61	1.85	2.21		32	6	12		20	4	8
24MHEXANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
3MHEXANE		1.0	0.1	0.3		1.34	0.46	0.74		12	1	4		7	1	3
224MPENTAN		6.2	1.3	2.3		8.30	6.02	5.65		74	19	32		46	12	20
NHEPTANE		0.9	0.1	0.2		1.20	0.46	0.49		11	1	3		7	1	2
MCYHEXANE		0.2	0.0	0.0		0.27	0.00	0.00		2	0	0		1	0	0
25MHEXANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
24MC6+233M		1.4	0.1	0.4		1.87	0.46	0.98		17	1	5		10	1	3
234MC5		1.5	0.2	0.5		2.01	0.93	1.23		18	3	7		11	2	4
TOLUENE		4.5	0.5	1.4		6.02	2.31	3.44		50	7	18		31	4	11
23MC644MC7		0.8	0.1	0.3		1.07	0.46	0.74		10	1	4		6	1	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 71111
DATE RUN: 10 27 78 AIR CONDITIONER USED
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	0.9	0.1	0.3	1.20	0.46	0.74	11	1	4	7	1	3
3MHEPTANE	0.8	0.1	0.3	1.07	0.46	0.74	10	1	4	6	1	3
25DMC6	0.8	0.1	0.2	1.07	0.46	0.49	10	1	3	6	1	2
N OCTANE	0.5	0.0	0.1	0.67	0.00	0.25	6	0	1	4	0	1
22DMC6	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.2	0.0	0.1	0.27	0.00	0.25	2	0	1	1	0	1
ET BENZENE	0.7	0.0	0.1	0.94	0.00	0.25	8	0	1	5	0	1
M+PXYLENE	2.6	0.0	0.5	3.48	0.00	1.23	29	0	6	18	0	4
244MC8	0.5	0.0	0.1	0.67	0.00	0.25	6	0	1	4	0	1
O XYLENE	1.1	0.0	0.2	1.47	0.00	0.49	12	0	3	8	0	2
N NONANE	0.3	0.0	0.1	0.40	0.00	0.25	4	0	1	2	0	1
IPRBENZENE	0.3	0.0	0.1	0.40	0.00	0.25	3	0	1	2	0	1
NPRBENZENE	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
1M3ETBENZ	0.8	0.0	0.1	1.07	0.00	0.25	9	0	1	6	0	1
135MEBENZ	0.3	0.0	0.1	0.40	0.00	0.25	3	0	1	2	0	1
1M2ETBENZ	0.4	0.0	0.1	0.54	0.00	0.25	4	0	1	3	0	1
124MBENZ	1.0	0.0	0.1	1.34	0.00	0.25	11	0	1	7	0	1
SBUBENZENE	0.1	0.0	0.1	0.13	0.00	0.25	1	0	1	1	0	1
N DECANE	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.2	0.0	0.0	0.27	0.00	0.00	2	0	0	1	0	0
INDANE	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
UNKNOWNS	4.7	0.9	0.9	6.29	4.17	2.21	53	13	12	33	8	7

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 71112
DATE RUN: 10 30 78 AIR CONDITIONER USED
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: SWARTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	84.9	20.4	39.1
GC PPMC	77.0	17.9	37.0

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	12.8	8.8	14.4	16.62	49.16	38.92	187	173	194	116	107	120
SATURATES	33.8	7.0	15.9	43.90	39.11	42.97	442	123	191	275	76	119
OLEFINS	6.3	0.3	2.8	8.18	1.68	7.57	80	5	33	50	3	20
ACETYLENE	1.6	0.0	0.0	2.08	0.00	0.00	19	0	0	12	0	0
NAPTHENES	1.3	0.1	0.2	1.69	0.56	0.54	17	2	2	10	1	1
AROMATICS	17.3	0.7	3.3	22.47	3.91	8.92	207	11	36	129	7	23
BENZENE	1.9	0.4	1.0	2.47	2.23	2.70	23	6	11	14	4	7
TOLUENE	5.2	0.3	1.1	6.75	1.68	2.97	62	5	12	39	3	8
C8+AROM	10.2	0.0	1.2	13.25	0.00	3.24	124	0	13	77	0	8
UNKNOWN	3.9	1.0	0.4	0.00	0.00	0.00	48	16	5	30	10	3
INDIVIDUAL COMPONENTS												
METHANE	12.8	8.8	14.4	16.62	49.16	38.92	187	173	194	116	107	120
ETHYLENE	3.1	0.3	1.9	4.03	1.68	5.14	40	5	22	25	3	14
ETHANE	2.9	1.4	1.9	3.77	7.82	5.14	40	26	24	25	16	15
ACETYLENE	1.6	0.0	0.0	2.08	0.00	0.00	19	0	0	12	0	0
C3 + C3=	1.2	0.0	0.5	1.56	0.00	1.35	15	0	6	10	0	4
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.3	0.2	0.5	0.39	1.12	1.35	4	4	6	2	2	4
B1 + 1B	0.5	0.0	0.0	0.65	0.00	0.00	6	0	0	4	0	0
NC4 +B=1=3	2.9	1.3	3.9	3.77	7.26	10.54	38	23	48	24	14	30
TBUTENE-2	0.2	0.0	0.2	0.26	0.00	0.54	3	0	2	2	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.1	0.0	0.1	0.13	0.00	0.27	1	0	1	1	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	2.8	1.0	2.3	3.64	5.59	6.22	37	18	28	23	11	17
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	0.6	0.2	0.4	0.78	1.12	1.08	8	4	5	5	2	3
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 71112
DATE RUN: 10 30 78 AIR CONDITIONER USED
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y146568 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
TPENT=2		0.2	0.0	0.0		0.26	0.00	0.00		3	0	0		2	0	0
CISPENT-2		0.1	0.0	0.0		0.13	0.00	0.00		1	0	0		1	0	0
2MBUT-2		0.4	0.0	0.1		0.52	0.00	0.27		5	0	1		3	0	1
22MBUTANE		0.1	0.0	0.0		0.13	0.00	0.00		1	0	0		1	0	0
CYPENTENE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
3MPENTENE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
CYPENTANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
23MBUTANE		0.5	0.1	0.3		0.65	0.56	0.81		7	2	4		4	1	2
2MPENTANE		1.3	0.2	0.6		1.69	1.12	1.62		17	4	7		11	2	4
3MPENTANE		0.7	0.2	0.3		0.91	1.12	0.81		9	4	4		6	2	2
HEXENE-1		0.1	0.0	0.0		0.13	0.00	0.00		1	0	0		1	0	0
N HEXANE		0.4	0.1	0.2		0.52	0.56	0.54		5	2	2		3	1	1
TC6=3,=2		0.3	0.0	0.0		0.39	0.00	0.00		4	0	0		2	0	0
CC6=3		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
2MPENTENE2		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
MCYP43M2C5		0.6	0.1	0.2		0.78	0.56	0.54		8	2	2		5	1	1
24MPENTANE		1.2	0.2	0.4		1.56	1.12	1.08		16	4	5		10	2	3
BENZENE		1.9	0.4	1.0		2.47	2.23	2.70		23	6	11		14	4	7
CYHEXANE		0.1	0.0	0.0		0.13	0.00	0.00		1	0	0		1	0	0
2MC6+23MC5		2.9	0.3	0.8		3.77	1.68	2.16		38	5	10		23	3	6
24MHEXANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
3MHEXANE		1.0	0.1	0.3		1.30	0.56	0.81		13	2	4		8	1	2
224MPENTAN		6.6	1.0	2.1		8.57	5.59	5.68		86	17	25		53	11	16
NHEPTANE		1.0	0.1	0.2		1.30	0.56	0.54		13	2	2		8	1	1
MCYHEXANE		0.3	0.0	0.0		0.39	0.00	0.00		4	0	0		2	0	0
25MHEXANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
24MC6+233M		1.5	0.1	0.3		1.95	0.56	0.81		19	2	4		12	1	2
234MC5		1.6	0.1	0.3		2.08	0.56	0.81		21	2	4		13	1	2
TOLUENE		5.2	0.3	1.1		6.75	1.68	2.97		62	5	12		39	3	8
23MC6+4MC7		0.9	0.1	0.2		1.17	0.56	0.54		12	2	2		7	1	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 71112
DATE RUN: 10 30 78 AIR CONDITIONER USED
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.0	0.1	0.2	1.30	0.56	0.54	13	2	2	8	1	1
3MHEPTANE	0.9	0.1	0.2	1.17	0.56	0.54	12	2	2	7	1	1
255MC6	0.9	0.1	0.2	1.17	0.56	0.54	12	2	2	7	1	1
N OCTANE	0.6	0.0	0.1	0.78	0.00	0.27	8	0	1	5	0	1
223MC6	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.3	0.0	0.0	0.39	0.00	0.00	4	0	0	2	0	0
ET BENZENE	0.8	0.0	0.1	1.04	0.00	0.27	10	0	1	6	0	1
M+PXYLENE	3.4	0.0	0.4	4.42	0.00	1.08	41	0	4	26	0	3
244MC8	0.6	0.0	0.1	0.78	0.00	0.27	8	0	1	5	0	1
O XYLENE	1.4	0.0	0.2	1.82	0.00	0.54	17	0	2	11	0	1
N NONANE	0.4	0.0	0.1	0.52	0.00	0.27	5	0	1	3	0	1
IPRBENZENE	0.3	0.0	0.1	0.39	0.00	0.27	4	0	1	2	0	1
NPRBENZENE	0.2	0.0	0.0	0.26	0.00	0.00	2	0	0	2	0	0
1M3ETBENZ	1.0	0.0	0.1	1.30	0.00	0.27	12	0	1	8	0	1
135MEBENZ	0.5	0.0	0.2	0.65	0.00	0.54	6	0	2	4	0	1
1M2ETBENZ	0.5	0.0	0.0	0.65	0.00	0.00	6	0	0	4	0	0
124MBENZ	1.4	0.0	0.1	1.82	0.00	0.27	17	0	1	11	0	1
SBUBENZENE	0.2	0.0	0.0	0.26	0.00	0.00	2	0	0	2	0	0
N DECANE	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.3	0.0	0.0	0.39	0.00	0.00	4	0	0	2	0	0
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
UNKNOWNS	3.9	1.0	0.4	5.06	5.59	1.08	48	16	5	30	10	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 71113
DATE RUN: 10 31 78 AIR CONDITIONER USED
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	111.9	35.5	66.1
GC PPMC	103.9	31.3	56.1

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	22.3	10.4	15.4	21.46	33.23	27.45	319	211	229	198	131	142
SATURATES	36.2	15.5	29.0	36.77	49.52	51.69	489	281	385	304	175	240
OLEFINS	11.2	1.4	4.2	10.78	4.47	7.49	140	25	55	87	15	34
ACETYLENE	2.4	0.0	0.0	2.31	0.00	0.00	28	0	0	17	0	0
NAPTHENES	1.5	0.3	0.6	1.44	0.96	1.07	19	5	8	12	3	5
AROMATICS	22.4	1.8	4.3	21.56	5.75	7.66	263	30	52	163	19	33
BENZENE	3.7	0.8	1.7	3.56	2.56	3.03	43	13	20	27	8	13
TOLUENE	6.1	0.7	1.6	5.87	2.24	2.85	72	12	20	44	7	12
C8+AROM	12.6	0.3	1.0	12.13	0.96	1.78	150	5	12	93	3	8
UNKNOWN	5.9	1.9	2.6	0.00	0.00	0.00	71	32	32	44	20	20
INDIVIDUAL COMPONENTS												
METHANE	22.3	10.4	15.4	21.46	33.23	27.45	319	211	229	198	131	142
ETHYLENE	5.5	1.3	3.2	5.29	4.15	5.70	69	23	42	43	14	26
ETHANE	2.0	1.4	1.6	1.92	4.47	2.85	27	27	22	17	17	16
ACETYLENE	2.4	0.0	0.0	2.31	0.00	0.00	28	0	0	17	0	0
C3 + C3=	2.4	0.1	0.6	2.31	0.32	1.07	30	2	8	19	1	5
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.4	0.3	0.7	0.38	0.96	1.25	5	6	9	3	3	6
B1 + IB	1.2	0.0	0.0	1.15	0.00	0.00	15	0	0	9	0	0
NC4 +B=1=3	3.8	2.0	5.5	3.66	6.39	9.80	49	37	74	31	23	46
TBUTENE-2	0.2	0.0	0.1	0.19	0.00	0.18	2	0	1	2	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.4	0.0	0.1	0.38	0.00	0.18	5	0	1	3	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	3.4	2.0	3.9	3.27	6.39	6.95	44	37	52	27	23	32
PENTENE-1	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
NPENTANE	0.6	0.3	0.6	0.56	0.96	1.07	8	5	8	5	3	5
2MB=1=3	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 71113
DATE RUN: 10 31 78 AIR CONDITIONER USED
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: MYER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.2	0.0	0.1	0.19	0.00	0.18	2	0	1	2	0	1
CISPENT-2	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.3	0.0	0.1	0.29	0.00	0.18	4	0	1	2	0	1
22MBUTANE	0.0	0.0	0.1	0.00	0.00	0.18	0	0	1	0	0	1
CYPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
23MBUTANE	0.8	0.4	0.5	0.77	1.28	0.89	10	7	7	6	5	4
2MPENTANE	1.4	0.6	3.7	1.35	1.92	6.60	18	11	49	11	7	31
3MPENTANE	0.8	0.5	0.6	0.77	1.60	1.43	10	9	11	6	6	7
HEXENE-1	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
N HEXANE	0.5	0.2	0.4	0.48	0.64	0.71	6	4	5	4	2	3
TC6=3=2	0.3	0.0	0.0	0.29	0.00	0.00	4	0	0	2	0	0
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
MCYP43M2C5	0.6	0.2	0.4	0.58	0.64	0.71	7	4	5	5	2	3
24MPENTANE	1.4	0.6	0.9	1.35	1.92	1.60	18	11	12	11	7	7
BENZENE	3.7	0.8	1.7	3.56	2.56	3.03	43	13	20	27	8	13
CYHEXANE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MC6+23MC5	3.3	1.2	1.7	3.18	3.83	3.03	42	22	23	26	13	14
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.1	0.4	0.6	1.06	1.28	1.07	14	7	8	9	4	5
224MPENTAN	7.7	3.2	4.1	7.41	10.22	7.31	98	58	54	61	36	34
NHEPTANE	1.0	0.2	0.4	0.96	0.64	0.71	13	4	5	8	2	3
MCYHEXANE	0.3	0.1	0.1	0.29	0.32	0.18	4	2	1	2	1	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+23JM	1.7	0.5	0.7	1.64	1.60	1.25	22	9	9	13	6	6
234MC5	1.9	0.5	0.7	1.83	1.60	1.25	24	9	9	15	6	6
TOLUENE	6.1	0.7	1.6	5.87	2.24	2.85	72	12	20	44	7	12
23MC6+4MC7	0.9	0.2	0.4	0.87	0.64	0.71	11	4	5	7	2	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 71113
DATE RUN: 10 31 78 AIR CONDITIONER USED
CAR: 1978 FORD PINTO CAL 3 WAY VIN: 8R11Y148568 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	1.2	0.3	0.4	1.15	0.96	0.71	15	5	5	9	3	3
3MHEPTANE	1.0	0.2	0.4	0.96	0.64	0.71	13	4	5	8	2	3
255MC6	1.1	0.3	0.4	1.06	0.96	0.71	14	5	5	9	3	3
N OCTANE	0.6	0.1	0.2	0.58	0.32	0.36	8	2	3	5	1	2
223MC6	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.4	0.0	0.1	0.38	0.00	0.18	5	0	1	3	0	1
ET BENZENE	1.0	0.1	0.1	0.96	0.32	0.18	12	2	1	7	1	1
M+PXYLENE	4.0	0.1	0.5	3.85	0.32	0.89	47	2	6	29	1	4
2+4MC8	0.8	0.1	0.2	0.77	0.32	0.36	10	2	3	6	1	2
O XYLENE	1.8	0.1	0.2	1.73	0.32	0.36	21	2	2	13	1	2
N NONANE	0.6	0.0	0.1	0.58	0.00	0.18	8	0	1	5	0	1
IPRBENZENE	0.5	0.0	0.1	0.48	0.00	0.18	6	0	1	4	0	1
NPRBENZENE	0.2	0.0	0.0	0.19	0.00	0.00	2	0	0	1	0	0
1M3ETBENZ	1.3	0.0	0.0	1.25	0.00	0.00	15	0	0	10	0	0
135MEBENZ	0.5	0.0	0.0	0.48	0.00	0.00	6	0	0	4	0	0
1M2ETBENZ	0.8	0.0	0.1	0.77	0.00	0.18	10	0	1	6	0	1
124MBENZ	1.6	0.0	0.0	1.54	0.00	0.00	19	0	0	12	0	0
SBUBENZENE	0.2	0.0	0.0	0.19	0.00	0.00	2	0	0	1	0	0
N DECANE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.4	0.0	0.0	0.38	0.00	0.00	5	0	0	3	0	0
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.2	0.0	0.0	0.19	0.00	0.00	2	0	0	1	0	0
UNKNOWNS	5.9	1.9	2.6	5.68	6.07	4.63	71	32	32	44	20	20

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80201
DATE RUN: 08 30 78
CAR: 1980 MERCURY PROTOTYPE VIN: 8M92F579951 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 20

HYDROCARBON CONCENTRATION BAG1 BAG2 BAG3
FID PPMC 1015.0 33.5 137.6
GC PPMC 1020.0 32.6 135.1

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
				MAJOR COMPONENTS								
METHANE	131.1	12.9	19.7	12.85	39.57	14.58	1672	215	257	1039	134	160
SATURATES	300.1	11.3	66.8	29.42	34.66	49.44	3426	169	781	2129	105	485
OLEFINS	197.9	0.8	13.3	19.40	2.45	9.84	2207	12	152	1371	7	94
ACETYLENE	87.6	0.0	0.0	8.59	0.00	0.00	907	0	0	563	0	0
NAPTHENES	16.8	0.1	3.1	1.65	0.31	2.29	187	1	35	116	1	22
AROMATICS	173.1	4.3	18.7	16.97	13.19	13.84	1813	59	200	1126	37	125
BENZENE	27.7	0.7	2.2	2.72	2.15	1.63	287	9	23	178	6	14
TOLUENE	35.6	1.0	4.4	3.49	3.07	3.26	373	14	47	232	9	29
C8+AROM	109.8	2.6	12.1	10.76	7.98	8.96	1169	36	132	726	23	82
UNKNOWN	113.4	3.2	13.5	0.00	0.00	0.00	1210	45	147	752	28	92
				INDIVIDUAL COMPONENTS								
METHANE	131.1	12.9	19.7	12.85	39.57	14.58	1672	215	257	1039	134	160
ETHYLENE	88.3	0.4	5.4	8.66	1.23	4.00	985	6	62	612	4	38
ETHANE	8.3	1.8	3.7	0.81	5.52	2.74	99	28	45	62	17	28
ACETYLENE	87.6	0.0	0.0	8.59	0.00	0.00	907	0	0	563	0	0
C3 + C3=	31.4	0.1	1.5	3.08	0.31	1.11	350	1	17	218	1	11
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	8.1	0.5	2.0	0.79	1.53	1.48	94	8	24	58	5	15
B1 + 1B	13.0	0.0	0.0	1.27	0.00	0.00	145	0	0	90	0	0
NC4 +B=1=3	30.0	2.3	9.1	2.94	7.06	6.74	347	35	108	215	22	67
TBUTENE-2	7.5	0.1	0.7	0.74	0.31	0.52	84	1	8	52	1	5
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	11.6	0.1	0.7	1.14	0.31	0.52	129	1	8	80	1	5
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	2.2	0.0	0.1	0.22	0.00	0.07	25	0	1	15	0	1
ISOPENTANE	30.1	1.8	9.5	2.95	5.52	7.03	345	27	112	215	17	69
PENTENE-1	0.3	0.0	0.1	0.03	0.00	0.07	3	0	1	2	0	1
2MBUT-1	2.1	0.0	0.3	0.21	0.00	0.22	23	0	3	15	0	2
NPENTANE	3.2	0.4	1.9	0.31	1.23	1.41	37	6	22	23	4	14
2MB=1=3	6.4	0.0	0.0	0.63	0.00	0.00	69	0	0	43	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80201
DATE RUN: 08 30 76
CAR: 1980 MERCURY PROTOTYPE VIN: 8M92F579951 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	5.3	0.0	0.7	0.52	0.00	0.52	59	0	8	37	0	5
CISPENT-2	2.7	0.0	0.3	0.26	0.00	0.22	30	0	3	19	0	2
2MBUT-2	10.1	0.1	1.7	0.99	0.31	1.26	113	1	19	70	1	12
22MBUTANE	2.7	0.0	0.3	0.26	0.00	0.22	31	0	4	19	0	2
CYPENTENE	1.8	0.0	0.0	0.18	0.00	0.00	20	0	0	12	0	0
3MPENTENE	1.1	0.0	0.2	0.11	0.00	0.15	12	0	2	8	0	1
CYPENTANE	1.0	0.0	0.3	0.10	0.00	0.22	11	0	3	7	0	2
23MBUTANE	1.8	0.2	1.5	0.18	0.61	1.11	21	3	18	13	2	11
2MPENTANE	14.1	0.4	3.1	1.38	1.23	2.29	161	6	36	100	4	23
3MPENTANE	8.8	0.3	2.0	0.86	0.92	1.48	100	4	23	62	3	15
HEXENE-1	3.4	0.0	0.0	0.33	0.00	0.00	38	0	0	24	0	0
N HEXANE	3.9	0.1	0.3	0.38	0.31	0.22	45	1	4	28	1	2
TC6=3,=2	6.0	0.0	1.1	0.59	0.00	0.81	67	0	13	42	0	8
CC6=3	1.9	0.0	0.2	0.19	0.00	0.15	21	0	2	13	0	1
2MPENTENE2	2.8	0.0	0.3	0.27	0.00	0.22	31	0	3	19	0	2
MCYP43M2C5	7.2	0.1	1.5	0.71	0.31	1.11	80	1	17	50	1	11
24MPENTANE	12.8	0.2	2.5	1.25	0.61	1.85	146	3	29	91	2	18
BENZENE	27.7	0.7	2.2	2.72	2.15	1.63	287	9	23	178	6	14
CYHEXANE	2.1	0.0	0.3	0.21	0.00	0.22	23	0	3	15	0	2
2MC6+23MC5	34.7	0.6	6.7	3.40	1.84	4.96	395	9	78	245	6	49
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	6.8	0.1	1.3	0.67	0.31	0.96	77	1	15	48	1	9
224MPENTAN	53.8	1.2	10.7	5.27	3.68	7.92	611	18	124	380	11	77
NHEPTANE	7.2	0.0	0.9	0.71	0.00	0.67	82	0	10	51	0	7
MCYHEXANE	4.3	0.0	0.7	0.42	0.00	0.52	48	0	8	30	0	5
25MHEXANE	2.0	0.0	0.0	0.20	0.00	0.00	23	0	0	14	0	0
24MC6+233M	10.7	0.2	1.9	1.05	0.61	1.41	121	3	22	75	2	14
234MC5	19.0	0.3	2.9	1.86	0.92	2.15	216	4	34	134	3	21
TOLUENE	35.6	1.0	4.4	3.49	3.07	3.26	373	14	47	232	9	29
23MC6+4MC7	7.4	0.2	1.2	0.73	0.61	0.89	84	3	14	52	2	9

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: R0201
DATE RUN: 08 30 78
CAR: 1980 MERCURY PROTOTYPE VIN: 8H92F579951 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	6.0	0.1	1.0	0.59	0.31	0.74	68	1	12	42	1	7
3MHEPTANE	6.7	0.1	1.0	0.66	0.31	0.74	76	1	12	47	1	7
255MC6	6.9	0.1	1.0	0.68	0.31	0.74	78	1	12	49	1	7
N OCTANE	3.0	0.0	0.5	0.24	0.00	0.37	34	0	6	21	0	4
223MC6	1.2	0.1	0.2	0.12	0.31	0.15	14	1	2	8	1	1
ETCYHEXANE	2.2	0.0	0.3	0.22	0.00	0.22	25	0	3	15	0	2
ET BENZENE	7.9	0.1	0.8	0.77	0.31	0.59	83	1	9	52	1	5
M+PXYLENE	27.4	0.3	2.7	2.69	0.92	2.00	289	4	29	180	3	18
244MC8	4.5	0.2	0.6	0.44	0.61	0.44	51	3	7	32	2	4
O XYLENE	11.9	0.2	1.2	1.17	0.61	0.89	126	3	13	78	2	8
N NONANE	5.3	0.1	0.7	0.52	0.31	0.52	60	1	8	37	1	5
IPRBENZENE	4.1	0.2	0.6	0.40	0.61	0.44	44	3	7	27	2	4
NPRBENZENE	2.8	0.0	0.2	0.27	0.00	0.15	30	0	2	18	0	1
1M3ETBENZ	12.7	0.0	1.2	1.25	0.00	0.89	135	0	13	84	0	8
135MEBENZ	5.3	0.1	0.5	0.52	0.31	0.37	56	1	5	35	1	3
1M2ETBENZ	6.4	0.1	0.9	0.63	0.31	0.67	68	1	10	42	1	6
124MBENZ	15.7	0.5	1.4	1.54	1.53	1.04	167	7	15	104	4	9
SBUBENZENE	2.2	0.2	0.4	0.22	0.61	0.30	23	3	4	15	2	3
N DECANE	1.1	0.0	0.3	0.11	0.00	0.22	12	0	3	8	0	2
123MBENZ	3.3	0.3	0.6	0.32	0.92	0.44	35	4	7	22	3	4
INDANE	1.4	0.1	0.4	0.14	0.31	0.30	15	1	4	9	1	3
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	3.1	0.2	0.5	0.30	0.61	0.37	33	3	5	21	2	3
1M3PRBENZ	5.6	0.3	0.7	0.55	0.92	0.52	60	4	8	37	3	5
UNKNOWNS	113.4	3.2	13.5	11.12	9.82	9.99	1210	45	147	752	28	92

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80202
DATE RUN: 08 31 78
CAR: 1980 MERCURY PROTOTYPE VIN: 8M92F579951 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 20

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	1108.4	33.3	135.3
GC PPMC	1076.8	34.0	119.8

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	148.0	12.1	15.9	13.74	35.59	13.27	1946	164	217	1209	102	135
SATURATES	369.5	11.9	69.4	34.31	35.00	57.93	4349	144	847	2703	90	526
OLEFINS	186.2	0.6	9.2	17.29	1.76	7.68	2141	7	110	1330	4	68
ACETYLENE	97.9	0.0	0.0	9.09	0.00	0.00	1045	0	0	649	0	0
NAPTHENES	18.3	0.2	3.0	1.70	0.59	2.50	210	2	36	131	1	22
AROMATICS	201.6	2.9	14.0	18.72	8.53	11.69	2176	32	157	1353	20	97
BENZENE	31.8	0.5	1.6	2.95	1.47	1.34	339	5	18	211	3	11
TOLUENE	43.7	0.4	4.2	4.06	1.18	3.51	472	4	47	293	3	29
C8+AROM	126.1	2.0	8.2	11.71	5.88	6.84	1384	23	93	860	14	58
UNKNOWN	55.3	6.3	8.3	0.00	0.00	0.00	608	71	95	378	44	59
INDIVIDUAL COMPONENTS												
METHANE	148.0	12.1	15.9	13.74	35.59	13.27	1946	164	217	1209	102	135
ETHYLENE	99.7	0.3	2.4	9.26	0.88	2.00	1146	4	29	712	2	18
ETHANE	9.2	1.8	2.5	0.85	5.29	2.09	113	23	32	70	14	20
ACETYLENE	97.9	0.0	0.0	9.09	0.00	0.00	1045	0	0	649	0	0
C3 + C3=	28.2	0.0	0.8	2.62	0.00	0.67	324	0	10	201	0	6
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	4.8	0.7	2.3	0.44	2.06	1.92	56	9	28	35	5	18
B1 + IB	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NC4 +B=1=3	48.0	2.8	10.2	4.46	0.24	8.58	572	34	126	355	21	78
TBUTENE-2	6.5	0.1	0.7	0.60	0.29	0.58	75	1	8	46	1	5
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	8.9	0.1	0.6	0.83	0.29	0.50	102	1	7	64	1	4
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	1.2	0.0	0.1	0.11	0.00	0.08	14	0	1	9	0	1
ISOPENTANE	37.0	2.4	10.9	3.44	7.06	9.10	438	29	134	272	18	83
PENTENE-1	1.9	0.0	0.1	0.18	0.00	0.08	22	0	1	14	0	1
2MBUT-1	3.1	0.0	0.3	0.29	0.00	0.25	36	0	4	22	0	2
NPENTANE	7.4	0.5	2.0	0.69	1.47	1.67	88	6	25	54	4	15
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80202
DATE RUN: 08 31 78
CAR: 1980 MERCURY PROTOTYPE VIN: 8M92F579951 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	5.6	0.1	0.7	0.52	0.29	0.58	64	1	8	40	1	5
CISPENT-2	2.9	0.0	0.3	0.27	0.00	0.25	33	0	4	21	0	2
2MBUT-2	11.1	0.0	1.6	1.03	0.00	1.34	128	0	19	79	0	12
22MBUTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTENE	1.4	0.0	0.1	0.13	0.00	0.08	16	0	1	10	0	1
3MPENTENE	1.0	0.0	0.0	0.09	0.00	0.00	11	0	0	7	0	0
CYPENTANE	0.9	0.0	0.2	0.08	0.00	0.17	10	0	2	6	0	1
23MBUTANE	7.4	0.2	1.6	0.69	0.59	1.34	87	2	20	54	2	12
2MPENTANE	18.4	0.4	3.3	1.71	1.18	2.75	217	5	40	135	3	25
3MPENTANE	10.7	0.2	2.1	0.99	0.59	1.75	126	2	26	78	2	16
HEXENE-1	3.1	0.0	0.2	0.29	0.00	0.17	36	0	2	22	0	1
N HEXANE	4.7	0.1	0.8	0.44	0.29	0.67	55	1	10	34	1	6
TC6=3,=2	6.5	0.0	0.9	0.60	0.00	0.75	75	0	11	46	0	7
CC6=3	1.9	0.0	0.1	0.18	0.00	0.08	22	0	1	14	0	1
2MPENTENE2	3.2	0.0	0.3	0.30	0.00	0.25	37	0	4	23	0	2
MCYP43M2C5	8.5	0.2	1.5	0.79	0.59	1.25	98	2	18	61	1	11
24MPENTANE	15.0	0.2	2.6	1.39	0.59	2.17	176	2	32	109	2	20
BENZENE	31.8	0.5	1.6	2.95	1.47	1.34	339	5	18	211	3	11
CYHEXANE	2.0	0.0	0.3	0.19	0.00	0.25	23	0	4	14	0	2
2MC6+23MC5	42.8	0.5	7.0	3.97	1.47	5.84	502	6	85	312	4	53
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	8.3	0.1	1.3	0.77	0.29	1.09	97	1	16	61	1	10
224MPENTAN	67.1	1.1	11.1	6.23	3.24	9.27	785	13	135	488	8	84
NHEPTANE	8.4	0.0	0.8	0.78	0.00	0.67	99	0	10	61	0	6
MCYHEXANE	4.9	0.0	0.7	0.46	0.00	0.58	56	0	8	35	0	5
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	13.0	0.1	1.9	1.21	0.29	1.59	152	1	23	95	1	14
234MC5	21.3	0.2	3.0	1.98	0.59	2.50	249	2	36	155	1	23
TOLUENE	43.7	0.4	4.2	4.06	1.18	3.51	472	4	47	293	3	29
23MC6+4MC7	8.4	0.1	1.1	0.78	0.29	0.92	98	1	13	61	1	8

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80202
DATE RUN: 09 31 78
CAR: 1980 MERCURY PROTOTYPE VIN: 8M92F579951 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	7.0	0.1	1.0	0.65	0.29	0.83	82	1	12	51	1	8
3MHEPTANE	7.3	0.1	1.0	0.68	0.29	0.83	85	1	12	53	1	8
255MC6	7.7	0.1	1.0	0.72	0.29	0.83	90	1	12	56	1	8
N OCTANE	3.4	0.0	0.4	0.32	0.00	0.33	40	0	5	25	0	3
223MC6	1.0	0.0	0.2	0.09	0.00	0.17	12	0	2	7	0	2
ETCYHEXANE	2.0	0.0	0.3	0.19	0.00	0.25	23	0	4	14	0	2
ET BENZENE	8.5	0.1	0.6	0.79	0.29	0.50	92	1	7	57	1	4
M+PXYLENE	33.6	0.3	2.4	3.12	0.88	2.00	365	3	27	227	2	17
244MC8	4.8	0.1	0.6	0.45	0.29	0.50	56	1	7	35	1	5
O XYLENE	14.3	0.1	1.1	1.33	0.29	0.92	156	1	12	97	1	8
N NONANE	5.7	0.1	0.6	0.53	0.29	0.50	67	1	7	41	1	5
IPRBENZENE	4.1	0.0	0.4	0.38	0.00	0.33	45	0	5	28	0	3
NPRBENZENE	2.4	0.0	0.1	0.22	0.00	0.08	26	0	1	16	0	1
1M3ETBENZ	14.7	0.2	0.9	1.37	0.59	0.75	161	2	10	100	1	6
135MEBENZ	6.0	0.1	0.4	0.56	0.29	0.33	66	1	5	41	1	3
1M2ETBENZ	7.3	0.1	0.7	0.68	0.29	0.58	80	1	8	50	1	5
124MBENZ	18.0	0.4	1.6	1.67	1.18	0.83	197	5	11	122	3	7
SBUBENZENE	2.0	0.1	0.2	0.19	0.29	0.17	22	1	2	14	1	1
N DECANE	0.8	0.0	0.1	0.07	0.00	0.08	9	0	1	6	0	1
123MBENZ	3.6	0.1	0.2	0.33	0.29	0.17	39	1	2	24	1	1
INDANE	1.2	0.0	0.0	0.11	0.00	0.00	13	0	0	8	0	0
13EBENZENE	0.8	0.0	0.0	0.07	0.00	0.00	9	0	0	5	0	0
NBUBENZENE	4.2	0.2	0.1	0.39	0.59	0.08	46	2	1	29	1	1
1M3PRBENZ	5.4	0.3	0.1	0.50	0.88	0.08	59	3	1	37	2	1
UNKNOWNS	55.3	6.3	8.3	5.14	18.53	6.93	608	71	95	378	44	59

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80401
DATE RUN: 08 29 79
CAR: 1980 MERCURY PROTOTYPE VIN: 8M92F579951 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 40

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	525.6	28.1	141.3
GC PPMC	542.1	27.9	125.7

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	67.9	12.6	19.7	12.53	45.16	15.67	658	213	285	533	133	177
SATURATES	174.3	10.0	67.9	32.15	35.84	54.02	1971	152	880	1225	94	547
OLEFINS	100.2	0.6	14.0	18.48	2.15	11.14	1107	9	177	688	6	110
ACETYLENE	47.4	0.0	0.5	8.74	0.00	0.40	486	0	6	302	0	4
NAPTHENES	9.4	0.1	3.2	1.73	0.36	2.55	104	1	41	65	1	25
AROMATICS	90.0	1.4	13.1	16.60	5.02	10.42	933	19	156	580	12	97
BENZENE	13.9	0.5	2.3	2.56	1.79	1.83	142	7	27	89	4	17
TOLUENE	18.2	0.4	4.2	3.36	1.43	3.34	189	6	50	117	3	31
C8+ARON	57.9	0.5	6.6	10.68	1.79	5.25	610	7	80	379	4	50
UNKNOWN	52.9	3.2	7.3	0.00	0.00	0.00	559	45	86	347	28	55
INDIVIDUAL COMPONENTS												
METHANE	67.9	12.6	19.7	12.53	45.16	15.67	858	213	265	533	133	177
ETHYLENE	40.6	0.2	5.8	7.49	0.72	4.61	448	3	73	279	2	46
ETHANE	5.0	1.9	3.1	0.92	6.81	2.47	59	30	42	37	19	26
ACETYLENE	47.4	0.0	0.5	8.74	0.00	0.40	486	0	6	302	0	4
C3 + C3=	18.1	0.2	1.5	3.34	0.72	1.19	200	3	19	124	2	12
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	5.1	0.5	1.9	0.94	1.79	1.51	58	8	25	36	5	15
B1 + 1B	7.5	0.0	0.0	1.38	0.00	0.00	83	0	0	51	0	0
NC4 +B=1=3	19.3	2.1	9.4	3.56	7.53	7.48	221	32	123	137	20	77
TBUTENE-2	3.8	0.1	0.8	0.70	0.36	0.64	42	1	10	26	1	6
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	5.1	0.0	0.9	0.94	0.00	0.72	56	0	11	35	0	7
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	1.3	0.0	0.1	0.25	0.00	0.08	14	0	1	9	0	1
ISOPENTANE	20.3	1.7	9.6	3.74	6.09	7.64	231	26	125	143	16	78
PENTENE-1	1.2	0.0	0.1	0.22	0.00	0.08	13	0	1	8	0	1
2MBUT-1	1.7	0.0	0.2	0.31	0.00	0.16	19	0	3	12	0	2
NPENTANE	4.2	0.4	2.0	0.77	1.43	1.59	46	6	26	30	4	16
2MB=1=3	0.4	0.0	0.0	0.07	0.00	0.00	4	0	0	3	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80401
DATE RUN: 08 29 76
CAR: 1980 MERCURY PROTOTYPE VIN: 8M92F579951 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	3.2	0.0	0.7	0.59	0.00	0.56	35	0	9	22	0	6
CISPENT-2	1.6	0.0	0.3	0.30	0.00	0.24	18	0	4	11	0	2
2MBUT-2	6.2	0.1	1.6	1.14	0.36	1.27	68	1	20	43	1	13
22MBUTANE	1.5	0.0	0.0	0.28	0.00	0.00	17	0	0	11	0	0
CYPENTENE	1.2	0.0	0.1	0.22	0.00	0.08	13	0	1	8	0	1
3MPENTENE	0.6	0.0	0.0	0.11	0.00	0.00	7	0	0	4	0	0
CYPENTANE	0.6	0.0	0.3	0.11	0.00	0.24	7	0	4	4	0	2
23MBUTANE	3.9	0.2	1.5	0.72	0.72	1.19	44	3	19	27	2	12
2MPENTANE	8.3	0.5	3.2	1.53	1.79	2.55	94	8	41	58	5	26
3MPENTANE	5.4	0.2	2.2	1.00	0.72	1.75	61	3	29	38	2	18
HEXENE-1	2.0	0.0	0.2	0.37	0.00	0.16	22	0	3	14	0	2
N HEXANE	2.3	0.1	0.8	0.42	0.36	0.64	26	2	10	16	1	6
TC6=3,=2	3.3	0.0	1.2	0.61	0.00	0.95	36	0	15	23	0	9
CC6=3	1.0	0.0	0.2	0.18	0.00	0.16	11	0	3	7	0	2
2MPENTENE2	1.4	0.0	0.3	0.26	0.00	0.24	15	0	4	10	0	2
MCYP43M2C5	4.2	0.1	1.6	0.77	0.36	1.27	46	1	20	29	1	13
24MPENTANE	7.4	0.2	2.7	1.37	0.72	2.15	83	3	35	52	2	22
BENZENE	13.9	0.5	2.3	2.56	1.79	1.83	142	7	27	89	4	17
CYHEXANE	1.2	0.0	0.3	0.22	0.00	0.24	13	0	4	8	0	2
2MC6+23MC5	18.8	0.5	7.1	3.07	1.79	5.65	212	8	92	132	5	57
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.7	0.1	1.3	0.68	0.36	1.03	42	2	17	26	1	10
224MPENTAN	28.9	1.0	11.1	5.33	3.58	8.63	325	15	143	202	9	89
NHEPTANE	3.6	0.0	1.0	0.66	0.00	0.88	41	0	13	25	0	8
MCYHEXANE	2.3	0.0	0.7	0.42	0.00	0.56	25	0	9	16	0	6
25MHEXANE	1.0	0.0	0.0	0.18	0.00	0.00	11	0	0	7	0	0
24MC6+233M	5.5	0.1	1.9	1.01	0.36	1.51	62	2	24	38	1	15
234MC5	9.2	0.2	2.9	1.70	0.72	2.31	103	3	37	64	2	23
TOLUENE	18.2	0.4	4.2	3.36	1.43	3.34	189	6	50	117	3	31
23MC6+4MC7	3.7	0.1	1.2	0.68	0.36	0.95	42	2	15	26	1	10

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80401
DATE RUN: 08 29 78
CAR: 1980 MERCURY PROTOTYPE VIN: 8M92F579951 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	3.0	0.1	1.0	0.55	0.36	0.80	34	2	13	21	1	8
3MHEPTANE	3.4	0.0	1.0	0.63	0.00	0.80	38	0	13	24	0	8
255MC6	3.4	0.1	1.0	0.63	0.36	0.80	38	2	13	24	1	8
N OCTANE	1.5	0.0	0.5	0.28	0.00	0.40	17	0	6	10	0	4
223MC6	0.4	0.0	0.2	0.07	0.00	0.16	4	0	3	3	0	2
ETCYHEXANE	1.1	0.0	0.3	0.20	0.00	0.24	12	0	4	8	0	2
ET BENZENE	4.2	0.0	0.6	0.77	0.00	0.48	44	0	7	27	0	4
M+PXYLENE	13.7	0.1	2.0	2.53	0.36	1.59	143	1	24	89	1	15
244MC8	2.3	0.0	0.6	0.42	0.00	0.48	26	0	8	16	0	5
O XYLENE	6.1	0.0	0.9	1.13	0.00	0.72	64	0	11	40	0	7
N NONANE	2.6	0.0	0.6	0.48	0.00	0.48	29	0	8	18	0	5
IPRBENZENE	2.0	0.0	0.4	0.37	0.00	0.32	21	0	5	13	0	3
NPRBENZENE	1.4	0.0	0.1	0.26	0.00	0.08	15	0	1	9	0	1
1M3ETBENZ	6.7	0.1	0.7	1.24	0.36	0.56	70	1	8	44	1	5
135MEBENZ	2.7	0.0	0.3	0.50	0.00	0.24	28	0	4	18	0	2
1M2ETBENZ	3.3	0.1	0.7	0.61	0.36	0.56	35	1	8	22	1	5
124MBENZ	8.3	0.1	0.7	1.53	0.36	0.56	87	1	8	54	1	5
SBUBENZENE	1.1	0.1	0.2	0.20	0.36	0.16	12	1	2	7	1	2
N DECANE	0.6	0.0	0.1	0.11	0.00	0.08	7	0	1	4	0	1
123MBENZ	2.3	0.0	0.0	0.42	0.00	0.00	24	0	0	15	0	0
INDANE	0.8	0.0	0.0	0.15	0.00	0.00	8	0	0	5	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	2.2	0.0	0.0	0.41	0.00	0.00	23	0	0	14	0	0
1M3PRBENZ	3.1	0.0	0.0	0.57	0.00	0.00	33	0	0	20	0	0
UNKNOWNS	52.9	3.2	7.3	9.76	11.47	5.81	559	45	88	347	28	55

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80601
DATE RUN: 09 15 78
CAR: 1980 MERCURY PROTOTYPE VIN: 8H92F579951 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 60

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	174.2	18.7	75.7
GC PPMC	162.6	16.4	71.7

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	24.9	8.6	13.6	15.31	52.44	18.97	339	148	176	211	92	109
SATURATES	72.2	6.7	34.0	44.40	40.85	47.42	880	103	393	547	64	245
OLEFINS	17.6	0.2	5.6	10.82	1.22	7.81	210	3	63	130	2	39
ACETYLENE	3.4	0.0	0.0	2.09	0.00	0.00	38	0	0	23	0	0
NAPTHENES	3.2	0.1	1.5	1.97	0.61	2.09	38	2	17	24	1	11
AROMATICS	34.3	0.6	14.2	21.09	3.66	19.80	384	8	151	238	5	94
BENZENE	6.3	0.2	1.7	3.87	1.22	2.37	70	3	18	43	2	11
TOLUENE	11.8	0.3	4.9	7.26	1.83	6.83	132	4	52	82	3	32
C8+AROM	16.2	0.1	7.6	9.96	0.61	10.60	184	1	82	114	1	51
UNKNOWN	7.0	0.2	2.6	0.00	0.00	0.00	80	3	30	50	2	19
INDIVIDUAL COMPONENTS												
METHANE	24.9	8.6	13.6	15.31	52.44	18.97	339	148	176	211	92	109
ETHYLENE	7.1	0.1	2.9	4.37	0.61	4.04	85	2	33	53	1	20
ETHANE	2.9	1.6	2.4	1.78	9.76	3.35	37	26	29	23	16	18
ACETYLENE	3.4	0.0	0.0	2.09	0.00	0.00	38	0	0	23	0	0
C3 + C3=	3.6	0.0	0.8	2.21	0.00	1.12	43	0	9	27	0	6
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.8	0.2	0.4	0.49	1.22	0.56	10	3	5	6	2	3
B1 + IB	1.5	0.0	0.0	0.92	0.00	0.00	18	0	0	11	0	0
NC4 +B=1=3	7.2	1.6	4.3	4.43	9.76	6.00	89	25	50	55	16	31
TBUTENE-2	0.6	0.0	0.2	0.37	0.00	0.28	7	0	2	4	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.5	0.0	0.2	0.31	0.00	0.28	6	0	2	4	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	7.4	1.2	3.6	4.55	7.32	5.02	91	19	42	56	12	26
PENTENE-1	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.2	0.0	0.0	0.12	0.00	0.00	2	0	0	1	0	0
NPENTANE	1.3	0.2	0.7	0.80	1.22	0.98	16	3	8	10	2	5
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 60601
DATE RUN: 09 15 78
CAR: 1980 MERCURY PROTOTYPE VIN: 8M92F579951 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPLNT=2	0.6	0.0	0.2	0.37	0.00	0.28	7	0	2	4	0	1
CISPENT-2	0.2	0.0	0.1	0.12	0.00	0.14	2	0	1	1	0	1
2MBUT-2	1.2	0.1	0.6	0.74	0.61	0.84	14	2	7	9	1	4
22MHUTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTENE	0.1	0.0	0.1	0.06	0.00	0.14	1	0	1	1	0	1
3MPENTENE	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.1	0.0	0.1	0.06	0.00	0.14	1	0	1	1	0	1
23MBUTANE	1.5	0.1	0.6	0.92	0.61	0.84	18	2	7	11	1	4
2MPENTANE	2.9	0.2	1.2	1.78	1.22	1.67	35	3	14	22	2	9
3MPENTANE	2.0	0.1	0.9	1.23	0.61	1.26	24	2	10	15	1	6
HEXENE-1	0.3	0.0	0.0	0.18	0.00	0.00	4	0	0	2	0	0
N HEXANE	1.3	0.1	0.5	0.80	0.61	0.70	16	2	6	10	1	4
TC6=3=2	1.1	0.0	0.4	0.68	0.00	0.56	13	0	5	8	0	3
CC6=3	0.1	0.0	0.1	0.06	0.00	0.14	1	0	1	1	0	1
2MPENTENE2	0.2	0.0	0.0	0.12	0.00	0.00	2	0	0	1	0	0
MCYP43M2C5	1.4	0.1	0.7	0.86	0.61	0.98	17	2	8	10	1	5
24MPENTANE	3.3	0.1	1.3	2.03	0.61	1.81	40	2	15	25	1	9
BENZENE	6.3	0.2	1.7	3.87	1.22	2.37	70	3	18	43	2	11
CYHEXANE	0.7	0.0	0.2	0.43	0.00	0.28	8	0	2	5	0	1
2MC6+23MC5	7.2	0.2	2.9	4.43	1.22	4.04	87	3	33	54	2	21
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.4	0.1	1.0	1.48	0.61	1.39	29	2	12	18	1	7
224MPENTAN	14.4	0.7	6.0	8.86	4.27	8.37	175	11	69	108	7	43
NHEPTANE	2.0	0.0	0.9	1.23	0.00	1.26	24	0	10	15	0	6
MCYHEXANE	0.6	0.0	0.2	0.37	0.00	0.28	7	0	2	4	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	3.0	0.1	1.2	1.85	0.61	1.67	36	2	14	23	1	9
234MC5	3.2	0.1	1.4	1.97	0.61	1.95	39	2	16	24	1	10
TULUENE	11.6	0.3	4.9	7.26	1.83	6.83	132	4	52	82	3	32
23MC6+4MC7	1.5	0.1	0.7	0.92	0.61	0.98	18	2	8	11	1	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80601
DATE RUN: 09 15 78
CAR: 1980 MERCURY PROTOTYPE VIN: 8M92F579951 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.9	0.0	0.9	1.17	0.00	1.26	23	0	10	14	0	6
3MHEPTANE	1.7	0.0	0.8	1.05	0.00	1.12	21	0	9	13	0	6
255MC6	1.6	0.0	0.8	0.98	0.00	1.12	19	0	9	12	0	6
N OCTANE	0.9	0.0	0.5	0.55	0.00	0.70	11	0	6	7	0	4
223MC6	0.2	0.0	0.1	0.12	0.00	0.14	2	0	1	2	0	1
ETCYHEXANE	0.4	0.0	0.3	0.25	0.00	0.42	5	0	3	3	0	2
ET BENZENE	1.5	0.0	0.8	0.92	0.00	1.12	17	0	9	11	0	5
M+PXYLENE	5.4	0.1	2.6	3.32	0.61	3.63	61	1	28	38	1	17
2+4MC8	0.9	0.0	0.5	0.55	0.00	0.70	11	0	6	7	0	4
O XYLENE	2.4	0.0	1.0	1.48	0.00	1.39	27	0	11	17	0	7
N NONANE	0.6	0.0	0.3	0.37	0.00	0.42	7	0	3	5	0	2
IPRBENZENE	0.6	0.0	0.3	0.37	0.00	0.42	7	0	3	4	0	2
NPRBENZENE	0.3	0.0	0.1	0.18	0.00	0.14	3	0	1	2	0	1
1M3ETBENZ	1.6	0.0	0.7	0.98	0.00	0.98	18	0	8	11	0	5
135MEBENZ	0.6	0.0	0.3	0.37	0.00	0.42	7	0	3	4	0	2
1M2ETBENZ	0.9	0.0	0.4	0.55	0.00	0.56	10	0	4	6	0	3
124MBENZ	1.5	0.0	0.7	0.92	0.00	0.98	17	0	8	11	0	5
SBUBENZENE	0.3	0.0	0.2	0.18	0.00	0.28	3	0	2	2	0	1
N DECANE	0.1	0.0	0.1	0.06	0.00	0.14	1	0	1	1	0	1
123MBENZ	0.4	0.0	0.2	0.25	0.00	0.28	5	0	2	3	0	1
INDANE	0.2	0.0	0.1	0.12	0.00	0.14	2	0	1	1	0	1
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.2	0.0	0.1	0.12	0.00	0.14	2	0	1	1	0	1
1M3PRBENZ	0.3	0.0	0.1	0.18	0.00	0.14	3	0	1	2	0	1
UNKNOWNS	7.0	0.2	2.8	4.31	1.22	3.91	80	3	30	50	2	19

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80701
DATE RUN: 09 14 78
CAR: 1980 MERCURY PROTOTYPE VIN: 8H92F579951 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 70

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	104.3	21.8	76.4
GC PPMC	81.3	17.9	70.7

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	19.6	3.0	14.4	24.11	16.76	20.37	313	52	183	195	32	114
SATURATES	39.2	11.9	35.0	48.22	66.48	49.51	561	185	399	348	115	248
OLEFINS	6.7	0.7	7.9	8.24	3.91	11.17	94	11	88	58	7	55
ACETYLENE	2.7	0.0	0.2	3.32	0.00	0.28	35	0	2	22	0	1
NAPTHENES	1.5	0.1	1.2	1.85	0.56	1.70	21	2	13	13	1	8
AROMATICS	10.0	1.8	11.1	12.30	10.06	15.70	131	26	116	82	16	72
BENZENE	2.5	0.4	1.7	3.08	2.23	2.40	32	6	18	20	4	11
TOLUENE	4.2	1.4	4.0	5.17	7.82	5.66	55	20	42	34	12	26
C8+AROM	3.3	0.0	5.4	4.06	0.00	7.64	44	0	57	27	0	36
UNKNOWN	1.6	0.4	0.9	0.00	0.00	0.00	21	6	10	13	4	6
INDIVIDUAL COMPONENTS												
METHANE	19.6	3.0	14.4	24.11	16.76	20.37	313	52	183	195	32	114
ETHYLENE	2.3	0.1	3.7	2.83	0.56	5.23	32	2	41	20	1	26
ETHANE	2.0	0.6	2.5	2.46	3.35	3.54	30	10	30	19	6	19
ACETYLENE	2.7	0.0	0.2	3.32	0.00	0.28	35	0	2	22	0	1
C3 + C3=	0.9	0.1	1.0	1.11	0.56	1.41	13	2	11	8	1	7
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.9	0.7	0.9	1.11	3.91	1.27	13	11	10	8	7	6
B1 + IB	0.3	0.0	0.0	0.37	0.00	0.00	4	0	0	3	0	0
NC4 +B=1=3	5.9	3.6	6.2	7.26	20.11	8.77	85	57	72	53	35	44
TBUTENE-2	0.3	0.1	0.5	0.37	0.56	0.71	4	2	6	3	1	3
22MPRUPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.3	0.1	0.4	0.37	0.56	0.57	4	2	4	3	1	3
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.1	0.12	0.00	0.14	1	0	1	1	0	1
ISOPENTANE	5.9	2.6	4.9	7.26	14.53	6.93	85	41	56	53	25	35
PENTENE-1	0.1	0.0	0.1	0.12	0.00	0.14	1	0	1	1	0	1
2MBUT-1	0.0	0.0	0.2	0.00	0.00	0.28	0	0	2	0	0	1
NPENTANE	1.1	0.5	0.8	1.35	2.79	1.13	16	8	9	10	5	6
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80701
DATE RUN: 09 14 78
CAR: 1980 MERCURY PROTOTYPE VIN: 8M92F579951 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.4	0.1	0.3	0.49	0.56	0.42	6	2	3	3	1	2
CISPENT-2	0.2	0.0	0.1	0.25	0.00	0.14	3	0	1	2	0	1
2MBUT-2	0.9	0.2	0.7	1.11	1.12	0.99	13	3	8	8	2	5
22MBUTANE	0.1	0.0	0.1	0.12	0.00	0.14	1	0	1	1	0	1
CYPENTENE	0.1	0.0	0.1	0.12	0.00	0.14	1	0	1	1	0	1
3MPENTENE	0.0	0.0	0.1	0.00	0.00	0.14	0	0	1	0	0	1
CYPENTANE	0.1	0.0	0.1	0.12	0.00	0.14	1	0	1	1	0	1
23MBUTANE	0.9	0.2	0.7	1.11	1.12	0.99	13	3	8	8	2	5
2MPENTANE	2.0	0.5	1.2	2.46	2.79	1.70	29	8	14	18	5	9
3MPENTANE	1.0	0.2	0.8	1.23	1.12	1.13	14	3	9	9	2	6
HEXENE-1	0.1	0.0	0.1	0.12	0.00	0.14	1	0	1	1	0	1
N HEXANE	0.6	0.1	0.5	0.74	0.56	0.71	9	2	6	5	1	4
TC6=3,=2	0.5	0.0	0.3	0.62	0.00	0.42	7	0	3	4	0	2
CC6=3	0.1	0.0	0.1	0.12	0.00	0.14	1	0	1	1	0	1
2MPENTENE2	0.1	0.0	0.1	0.12	0.00	0.14	1	0	1	1	0	1
MCYP4JM2C5	0.8	0.1	0.5	0.98	0.56	0.71	11	2	6	7	1	3
24MPENTANE	1.6	0.2	1.2	1.97	1.12	1.70	23	3	14	14	2	8
BENZENE	2.5	0.4	1.7	3.08	2.23	2.40	32	6	18	20	4	11
CYHEXANE	0.3	0.0	0.2	0.37	0.00	0.28	4	0	2	3	0	1
2MC6+23MC5	3.3	0.4	2.5	4.06	2.23	3.54	47	6	28	29	4	18
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.0	0.1	0.8	1.23	0.56	1.13	14	2	9	9	1	6
224MPNTAN	6.3	1.2	5.4	7.75	6.70	7.64	90	19	61	56	12	38
NHEPTANE	0.8	0.1	0.7	0.98	0.56	0.99	11	2	8	7	1	5
MCYHEXANE	0.2	0.0	0.2	0.25	0.00	0.28	3	0	2	2	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.2	0.1	1.0	1.48	0.56	1.41	17	2	11	11	1	7
234MC5	1.2	0.2	1.2	1.48	1.12	1.70	17	3	14	11	2	8
TOLUENE	4.2	1.4	4.0	5.17	7.82	5.66	55	20	42	34	12	26
23MC6+4MC7	0.6	0.2	0.6	0.74	1.12	0.85	9	3	7	5	2	4

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EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: F0701
DATE RUN: 09 14 78
CAR: 1980 MERCURY PROTOTYPE VIN: 8H92F579951 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
34MHEXANE	0.7	0.1	0.7	0.86	0.56	0.99	10	2	8	6	1	5
3MHEPTANE	0.6	0.1	0.6	0.74	0.56	0.85	9	2	7	5	1	4
255MC6	0.6	0.1	0.6	0.74	0.56	0.85	9	2	7	5	1	4
N OCTANE	0.3	0.1	0.4	0.37	0.56	0.57	4	2	5	3	1	3
223MC6	0.1	0.0	0.1	0.12	0.00	0.14	1	0	1	1	0	1
ETCYHEXANE	0.1	0.0	0.2	0.12	0.00	0.28	1	0	2	1	0	1
ET BENZENE	0.4	0.0	0.6	0.49	0.00	0.85	5	0	6	3	0	4
M+PXYLENE	1.3	0.0	2.0	1.60	0.00	2.83	17	0	21	11	0	13
2+4MC8	0.3	0.0	0.4	0.37	0.00	0.57	4	0	5	3	0	3
O XYLENE	0.5	0.0	0.8	0.62	0.00	1.13	7	0	8	4	0	5
N NONANE	0.2	0.0	0.2	0.25	0.00	0.28	3	0	2	2	0	1
IPRBENZENE	0.2	0.0	0.2	0.25	0.00	0.28	3	0	2	2	0	1
NPRBENZENE	0.0	0.0	0.1	0.00	0.00	0.14	0	0	1	0	0	1
1M3ETBENZ	0.3	0.0	0.5	0.37	0.00	0.71	4	0	5	2	0	3
135MEBENZ	0.1	0.0	0.2	0.12	0.00	0.28	1	0	2	1	0	1
1M2ETBENZ	0.1	0.0	0.3	0.12	0.00	0.42	1	0	3	1	0	2
124MBENZ	0.2	0.0	0.4	0.25	0.00	0.57	3	0	4	2	0	3
SBUBENZENE	0.1	0.0	0.1	0.12	0.00	0.14	1	0	1	1	0	1
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.1	0.0	0.1	0.12	0.00	0.14	1	0	1	1	0	1
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1M3PRBENZ	0.0	0.0	0.1	0.00	0.00	0.14	0	0	1	0	0	1
UNKNOWNS	1.6	0.4	0.9	1.97	2.23	1.27	21	6	10	13	4	6

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80702
DATE RUN: 09 18 76
CAR: 1980 MERCURY PROTOTYPE VIN: 8H92F579951 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 70

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	148.6	20.1	42.1
GC PPMC	116.6	18.7	38.8

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	23.8	10.4	13.5	20.41	55.62	34.79	388	160	169	241	99	105
SATURATES	58.4	6.7	15.5	50.09	35.83	39.95	853	92	174	530	57	108
OLEFINS	10.5	0.2	3.2	9.01	1.07	8.25	150	3	35	93	2	22
ACETYLENE	3.2	0.0	0.0	2.74	0.00	0.00	42	0	0	26	0	0
NAPTHENES	2.7	0.1	0.4	2.32	0.53	1.03	39	1	4	24	1	3
AROMATICS	14.9	1.1	5.5	12.78	5.88	14.18	200	14	57	124	9	35
BENZENE	4.1	0.3	1.4	3.52	1.60	3.61	54	4	14	34	2	9
TOLUENE	6.9	0.7	2.0	5.92	3.74	5.15	92	9	21	57	5	13
C8+AROM	3.9	0.1	2.1	3.34	0.53	5.41	53	1	22	33	1	14
UNKNOWN	3.1	0.2	0.7	0.00	0.00	0.00	42	3	7	26	2	5
INDIVIDUAL COMPONENTS												
METHANE	23.8	10.4	13.5	20.41	55.62	34.79	388	160	169	241	99	105
ETHYLENE	4.3	0.1	1.6	3.69	0.53	4.12	61	1	18	38	1	11
ETHANE	2.2	1.6	2.3	1.89	8.56	5.93	34	23	27	21	14	17
ACETYLENE	3.2	0.0	0.0	2.74	0.00	0.00	42	0	0	26	0	0
C3 + C3=	1.6	0.0	0.7	1.37	0.00	1.80	23	0	8	14	0	5
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.7	0.2	0.3	0.60	1.07	0.77	10	3	3	6	2	2
B1 + 1B	0.4	0.0	0.3	0.34	0.00	0.77	6	0	3	4	0	2
NC4 +B=1=3	6.5	1.5	2.6	5.57	8.02	6.70	96	21	30	60	13	18
TBUTENE-2	0.3	0.0	0.2	0.26	0.00	0.52	4	0	2	3	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.3	0.0	0.1	0.26	0.00	0.26	4	0	1	3	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	6.9	1.1	2.0	5.92	5.88	5.15	101	15	23	63	9	14
PENTENE-1	0.2	0.0	0.0	0.17	0.00	0.00	3	0	0	2	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	1.4	0.2	0.4	1.20	1.07	1.03	21	3	5	13	2	3
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80702
DATE RUN: 09 18 78
CAR: 1980 MERCURY PROTOTYPE VIN: 8H92F579951 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.5	0.0	0.1	0.43	0.00	0.26	7	0	1	4	0	1
CISPENT-2	0.3	0.0	0.0	0.26	0.00	0.00	4	0	0	3	0	0
2MBUT-2	1.1	0.1	0.2	0.94	0.53	0.52	16	1	2	10	1	1
22MBUTANE	0.3	0.0	0.0	0.26	0.00	0.00	4	0	0	3	0	0
CYPLNTENE	0.2	0.0	0.0	0.17	0.00	0.00	3	0	0	2	0	0
3MPENTENE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.2	0.0	0.0	0.17	0.00	0.00	3	0	0	2	0	0
23MBUTANE	1.4	0.1	0.3	1.20	0.53	0.77	20	1	3	13	1	2
2MPENTANE	3.1	0.3	0.6	2.66	1.60	1.55	45	4	7	28	3	4
3MPENTANE	1.8	0.1	0.3	1.54	0.53	0.77	26	1	3	16	1	2
HEXENE-1	0.3	0.0	0.0	0.26	0.00	0.00	4	0	0	3	0	0
N HEXANE	1.1	0.1	0.2	0.94	0.53	0.52	16	1	2	10	1	1
TC6=3,=2	0.7	0.0	0.0	0.60	0.00	0.00	10	0	0	6	0	0
CC6=3	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	1.4	0.1	0.2	1.20	0.53	0.52	20	1	2	12	1	1
24MPENTANE	2.6	0.1	0.4	2.23	0.53	1.03	38	1	4	24	1	3
BENZENE	4.1	0.3	1.4	3.52	1.60	3.61	54	4	14	34	2	9
CYHEXANE	0.5	0.0	0.0	0.43	0.00	0.00	7	0	0	4	0	0
2MC6+23MC5	5.7	0.2	1.0	4.89	1.07	2.58	83	3	11	52	2	7
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.9	0.1	0.3	1.63	0.53	0.77	28	1	3	17	1	2
224MPENTAN	11.0	0.7	2.3	9.43	3.74	5.93	160	10	26	99	6	16
NHEPTANE	1.5	0.0	0.3	1.29	0.00	0.77	22	0	3	14	0	2
MCYHEXANE	0.4	0.0	0.1	0.34	0.00	0.26	6	0	1	4	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	2.1	0.1	0.4	1.80	0.53	1.03	30	1	4	19	1	3
234MC5	2.2	0.1	0.4	1.89	0.53	1.03	32	1	4	20	1	3
TOLUENE	6.9	0.7	2.0	5.92	3.74	5.15	92	9	21	57	5	13
23MC6+4MC7	1.1	0.1	0.3	0.94	0.53	0.77	16	1	3	10	1	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80702
DATE RUN: 09 18 78
CAR: 1980 MERCURY PROTOTYPE VIN: 8H92F579951 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.3	0.1	0.3	1.11	0.53	0.77	19	1	3	12	1	2
3MHEPTANE	1.1	0.0	0.2	0.94	0.00	0.52	16	0	2	10	0	1
255MC6	1.1	0.0	0.2	0.94	0.00	0.52	16	0	2	10	0	1
N OCTANE	0.6	0.0	0.1	0.51	0.00	0.26	9	0	1	5	0	1
223MC6	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.2	0.0	0.1	0.17	0.00	0.26	3	0	1	2	0	1
ET BENZENE	0.6	0.0	0.3	0.51	0.00	0.77	8	0	3	5	0	2
M+PXYLENE	1.8	0.1	0.8	1.54	0.53	2.06	24	1	8	15	1	5
244MC6	0.4	0.0	0.2	0.34	0.00	0.52	6	0	2	4	0	1
O XYLENE	0.7	0.0	0.3	0.60	0.00	0.77	9	0	3	6	0	2
N NONANE	0.3	0.0	0.1	0.26	0.00	0.26	4	0	1	3	0	1
IPRBENZENE	0.2	0.0	0.1	0.17	0.00	0.26	3	0	1	2	0	1
NPRBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1M3ETBENZ	0.2	0.0	0.2	0.17	0.00	0.52	3	0	2	2	0	1
135MEBENZ	0.1	0.0	0.1	0.09	0.00	0.26	1	0	1	1	0	1
1M2ETBENZ	0.2	0.0	0.1	0.17	0.00	0.26	3	0	1	2	0	1
124MBENZ	0.1	0.0	0.1	0.09	0.00	0.26	1	0	1	1	0	1
SBUBENZENE	0.0	0.0	0.1	0.00	0.00	0.26	0	0	1	0	0	1
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBLNZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1M3PRBENZ	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
UNKNOWNS	3.1	0.2	0.7	2.66	1.07	1.80	42	3	7	26	2	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80801
DATE RUN: 09 11 79
CAR: 1980 MERCURY PROTOTYPE VIN: 6M92F579951 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	111.3	18.4	465.2
GC PPMC	105.4	16.5	529.3

COMPOUND NAME	PPMC BAG	1	2	3	% OF TOTAL CARBON BAG	1	2	3	MG/MILE BAG	1	2	3	MG/KM BAG	1	2	3
MAJOR COMPONENTS																
METHANE	20.6	8.9	27.1		19.54	53.94	5.12		279	139	332		173	87	206	
SATURATES	52.2	0.4	283.7		49.53	38.79	53.60		632	90	3112		393	56	1934	
OLEFINS	8.7	0.1	43.3		8.25	0.61	8.18		103	1	464		64	1	288	
ACETYLENE	4.5	0.0	1.4		4.27	0.00	0.26		49	0	14		31	0	9	
NAPTHENES	1.9	0.1	11.9		1.80	0.61	2.25		22	1	127		14	1	79	
AROMATICS	14.3	0.6	123.6		13.57	3.64	23.35		159	8	1244		99	5	773	
BENZENE	3.4	0.2	10.7		3.23	1.21	2.02		37	3	106		23	2	66	
TOLUENE	5.7	0.3	38.4		5.41	1.82	7.25		63	4	386		39	2	240	
C8+AROM	5.2	0.1	74.5		4.93	0.61	14.08		59	1	762		37	1	473	
UNKNOWN	3.2	0.4	38.3		0.00	0.00	0.00		36	5	393		23	3	244	
INDIVIDUAL COMPONENTS																
METHANE	20.6	8.9	27.1		19.54	53.94	5.12		279	139	332		173	87	206	
ETHYLENE	3.0	0.0	17.7		2.85	0.00	3.34		36	0	190		22	0	118	
ETHANE	2.3	1.6	3.7		2.18	9.70	0.70		29	23	42		18	15	26	
ACETYLENE	4.5	0.0	1.4		4.27	0.00	0.26		49	0	14		31	0	9	
C3 + C3=	1.1	0.0	4.3		1.04	0.00	0.81		13	0	46		8	0	29	
C=C=C	0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0	
METHACETYL	0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0	
ISOBUTANE	0.7	0.2	2.6		0.66	1.21	0.49		9	3	29		5	2	18	
B1 + IB	0.5	0.0	2.6		0.47	0.00	0.49		6	0	28		4	0	17	
NC4 +B=1=3	6.5	1.2	26.6		6.17	7.27	5.03		80	17	295		50	11	183	
TBUTENE-2	0.3	0.0	1.6		0.28	0.00	0.30		4	0	17		2	0	11	
22MPROPANE	0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0	
CBUTENE-2	0.2	0.0	1.4		0.19	0.00	0.26		2	0	15		1	0	9	
B=1=2	0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0	
3MB1	0.1	0.0	0.3		0.09	0.00	0.06		1	0	3		1	0	2	
ISOPENTANE	6.8	1.0	28.7		6.45	6.06	5.42		83	14	316		51	9	197	
PENTENE-1	0.2	0.0	0.5		0.19	0.00	0.09		2	0	5		1	0	3	
2MBUT-1	0.1	0.0	1.0		0.09	0.00	0.19		1	0	11		1	0	7	
NPENTANE	1.1	0.3	4.7		1.04	1.82	0.89		13	4	52		8	3	32	
2MB=1=3	0.0	0.0	0.1		0.00	0.00	0.02		0	0	1		0	0	1	

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80801
DATE RUN: 09 11 78
CAR: 1980 MERCURY PROTOTYPE VIN: 8H92F579951 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.5	0.0	2.2	0.47	0.00	0.42	6	0	24	4	0	15
CISPENT-2	0.2	0.0	1.0	0.19	0.00	0.19	2	0	11	1	0	7
2MBUT-2	1.1	0.1	4.6	1.04	0.61	0.87	13	1	49	8	1	31
22MBUTANE	0.2	0.0	0.7	0.19	0.00	0.13	2	0	8	2	0	5
CYPENTENE	0.1	0.0	0.4	0.09	0.00	0.08	1	0	4	1	0	3
3MPENTENE	0.1	0.0	0.3	0.09	0.00	0.06	1	0	3	1	0	2
CYPENTANE	0.1	0.0	0.5	0.09	0.00	0.09	1	0	5	1	0	3
23MBUTANE	1.4	0.1	6.0	1.33	0.61	1.13	17	1	66	11	1	41
2MPENTANE	2.7	0.5	12.2	2.56	3.03	2.30	33	7	134	20	4	83
3MPENTANE	1.6	0.1	7.4	1.52	0.61	1.40	19	1	81	12	1	50
HEXENE-1	0.2	0.0	0.9	0.19	0.00	0.17	2	0	10	1	0	6
N HEXANE	1.0	0.1	5.1	0.95	0.61	0.96	12	1	56	8	1	35
TC6=3,=2	0.7	0.0	2.6	0.66	0.00	0.49	8	0	28	5	0	17
CC6=3	0.1	0.0	0.6	0.09	0.00	0.11	1	0	6	1	0	4
2MPENTENE2	0.2	0.0	1.2	0.19	0.00	0.23	2	0	13	1	0	8
MCYP4,3M2C5	1.1	0.1	5.6	1.04	0.61	1.06	13	1	60	8	1	37
24MPENTANE	2.3	0.1	12.8	2.18	0.61	2.42	28	1	140	17	1	87
BENZENE	3.4	0.2	10.7	3.23	1.21	2.02	37	3	106	23	2	66
CYHEXANE	0.2	0.0	1.1	0.19	0.00	0.21	2	0	12	1	0	7
2MC6+23MC5	5.0	0.2	29.1	4.74	1.21	5.50	60	3	318	38	2	198
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.7	0.1	10.0	1.61	0.61	1.89	21	1	109	13	1	68
224MPENTAN	9.0	0.6	56.0	8.54	3.64	10.58	108	8	611	67	5	380
MHEPTANE	1.3	0.1	8.5	1.23	0.61	1.61	16	1	93	10	1	58
MCYHEXANE	0.3	0.0	2.4	0.28	0.00	0.45	4	0	26	2	0	16
25MHEXANE	0.6	0.0	5.2	0.57	0.00	0.98	7	0	57	4	0	35
24MC6+233M	1.1	0.1	7.9	1.04	0.61	1.49	13	1	86	8	1	54
234MC5	1.8	0.1	15.0	1.71	0.61	2.83	22	1	164	13	1	102
TOLUENE	5.7	0.3	38.4	5.41	1.82	7.25	63	4	386	39	2	240
23MC6+4MC7	1.0	0.0	6.5	0.95	0.00	1.23	12	0	71	7	0	44

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80801
DATE RUN: 09 11 78
CAR: 1980 MERCURY PROTOTYPE VIN: 8H92F579951 DRIVER: WARD FUEL: SUNNER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
34MHEXANE		1.1	0.0	8.6		1.04	0.00	1.62		13	0	94		8	0	58
3MHEPTANE		0.9	0.0	6.7		0.85	0.00	1.27		11	0	73		7	0	45
255MC6		0.8	0.0	6.7		0.76	0.00	1.27		10	0	73		6	0	45
N OCTANE		0.4	0.0	4.0		0.38	0.00	0.76		5	0	44		3	0	27
223MC6		0.1	0.0	1.0		0.09	0.00	0.19		1	0	11		1	0	7
ETCYHEXANE		0.2	0.0	2.3		0.19	0.00	0.43		2	0	25		1	0	15
ET BENZENE		0.6	0.0	6.0		0.57	0.00	1.13		7	0	61		4	0	38
M+PXYLENE		1.9	0.1	23.4		1.80	0.61	4.42		21	1	237		13	1	147
2+4MC8		0.5	0.0	4.6		0.47	0.00	0.87		6	0	50		4	0	31
O XYLENE		0.7	0.0	9.4		0.66	0.00	1.78		8	0	95		5	0	59
N NONANE		0.3	0.0	2.8		0.28	0.00	0.53		4	0	30		2	0	19
IPROPENZENE		0.2	0.0	3.0		0.19	0.00	0.57		2	0	31		1	0	19
NPRBENZENE		0.1	0.0	1.7		0.09	0.00	0.32		1	0	17		1	0	11
1M3ETBENZ		0.5	0.0	7.6		0.47	0.00	1.44		6	0	78		4	0	48
135MEBENZ		0.2	0.0	3.6		0.19	0.00	0.68		2	0	37		1	0	23
1M2ETBENZ		0.3	0.0	3.7		0.28	0.00	0.70		3	0	38		2	0	23
124MBENZ		0.5	0.0	8.7		0.47	0.00	1.64		6	0	89		4	0	55
SBUBENZENE		0.1	0.0	1.7		0.09	0.00	0.32		1	0	17		1	0	11
N DECANE		0.0	0.0	0.6		0.00	0.00	0.11		0	0	7		0	0	4
123MBENZ		0.1	0.0	2.0		0.09	0.00	0.38		1	0	20		1	0	13
INDANE		0.0	0.0	0.3		0.00	0.00	0.06		0	0	3		0	0	2
13EBENZENE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
NBUBENZENE		0.0	0.0	1.5		0.00	0.00	0.28		0	0	15		0	0	10
1M3PRBENZ		0.0	0.0	1.9		0.00	0.00	0.36		0	0	19		0	0	12
UNKNOWNS		3.2	0.4	38.3		3.04	2.42	7.24		36	5	393		23	3	244

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80802
DATE RUN: 06 19 78
CAR: 1980 MERCURY PROTOTYPE VIN: 8H92F579951 DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	104.1	23.6	98.8
GC PPMC	98.0	20.8	94.8

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	22.6	10.3	16.6	23.06	49.52	17.51	308	192	223	192	120	139
SATURATES	46.3	8.4	47.9	47.24	40.38	50.53	566	140	577	352	87	358
OLEFINS	6.9	0.4	7.2	7.04	1.92	7.59	82	7	85	51	4	53
ACETYLENE	3.0	0.0	0.0	3.06	0.00	0.00	33	0	0	21	0	0
NAPTHENES	1.9	0.1	1.7	1.94	0.48	1.79	23	2	20	14	1	12
AROMATICS	14.1	1.4	17.7	14.39	6.73	18.67	158	21	195	98	13	121
BENZENE	3.1	0.5	2.4	3.16	2.40	2.53	34	8	26	21	5	16
TOLUENE	5.6	0.6	6.0	5.71	2.88	6.33	63	9	66	39	6	41
C8+AROM	5.4	0.3	9.3	5.51	1.44	9.81	62	5	104	38	3	65
UNKNOWN	3.2	0.2	3.7	0.00	0.00	0.00	37	3	42	23	2	26
INDIVIDUAL COMPONENTS												
METHANE	22.6	10.3	16.6	23.06	49.52	17.51	308	192	223	192	120	139
ETHYLENE	2.7	0.2	4.0	2.76	0.96	4.22	32	3	47	20	2	29
ETHANE	2.4	1.7	2.6	2.45	8.17	2.74	31	30	33	19	18	20
ACETYLENE	3.0	0.0	0.0	3.06	0.00	0.00	33	0	0	21	0	0
C3 + C3=	1.1	0.1	1.2	1.12	0.48	1.27	13	2	14	8	1	9
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.6	0.3	0.6	0.61	1.44	0.63	7	5	7	5	3	5
B1 + IB	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NC4 +B=1=3	5.5	1.7	5.8	5.61	8.17	6.12	68	29	71	42	18	44
TBUTENE-2	0.3	0.0	0.3	0.31	0.00	0.32	4	0	4	2	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.3	0.20	0.00	0.32	2	0	4	1	0	2
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	5.7	1.4	5.4	5.82	6.73	5.70	70	24	65	44	15	41
PENTENE-1	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
NPENTANE	1.0	0.2	1.0	1.02	0.96	1.05	12	3	12	8	2	8
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80802
DATE RUN: 06 19 78
CAR: 1980 MERCURY PROTOTYPE VIN: 8M92F579951 DRIVER: HYLR FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.4	0.0	0.2	0.41	0.00	0.21	5	0	2	3	0	1
CISPENT-2	0.2	0.0	0.1	0.20	0.00	0.11	2	0	1	1	0	1
2MBUT-2	0.7	0.1	0.5	0.71	0.48	0.53	8	2	6	5	1	4
22MBUTANE	0.3	0.0	0.1	0.31	0.00	0.11	4	0	1	2	0	1
CYPENTENE	0.1	0.0	0.1	0.10	0.00	0.11	1	0	1	1	0	1
3MPLNTENE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.1	0.0	0.1	0.10	0.00	0.11	1	0	1	1	0	1
23MBUTANE	1.0	0.0	0.9	1.02	0.00	0.95	12	0	11	8	0	7
2MPLNTANE	2.1	0.2	2.0	2.14	0.96	2.11	26	3	24	16	2	15
3MPENTANE	1.3	0.2	1.2	1.33	0.96	1.27	16	3	14	10	2	9
HEXENE-1	0.1	0.0	0.1	0.10	0.00	0.11	1	0	1	1	0	1
N HEXANE	0.8	0.1	0.9	0.82	0.48	0.95	10	2	11	6	1	7
TC6=3,=2	0.5	0.0	0.3	0.51	0.00	0.32	6	0	4	4	0	2
CC6=3	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.1	0.0	0.1	0.10	0.00	0.11	1	0	1	1	0	1
MCYP43M2C5	0.9	0.1	0.8	0.92	0.48	0.84	11	2	9	7	1	6
24MPLNTANE	1.9	0.2	1.9	1.94	0.96	2.00	23	3	23	14	2	14
BENZENE	3.1	0.5	2.4	3.16	2.40	2.53	34	8	26	21	5	16
CYHEXANE	0.4	0.0	0.2	0.41	0.00	0.21	5	0	2	3	0	1
2MC6+23MC5	4.3	0.4	4.3	4.39	1.92	4.54	52	7	52	33	4	32
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.4	0.1	1.5	1.43	0.48	1.58	17	2	18	11	1	11
224MPENTAN	8.5	1.1	8.8	8.67	5.29	9.28	103	18	105	64	11	65
NHEPTANE	1.2	0.1	1.2	1.22	0.48	1.27	15	2	14	9	1	9
MCYHEXANE	0.3	0.0	0.3	0.31	0.00	0.32	4	0	4	2	0	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.6	0.1	1.8	1.63	0.48	1.90	19	2	22	12	1	13
234MC5	1.7	0.2	1.9	1.73	0.96	2.00	21	3	23	13	2	14
TOLUENE	5.6	0.6	6.0	5.71	2.88	6.33	68	9	66	39	6	41
23MC6+4MC7	0.9	0.1	0.9	0.92	0.48	0.95	11	2	11	7	1	7

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80F02
DATE RUN: 08 19 78
CAR: 1980 MERCURY PROTOTYPE VIN: 8H92F579951 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
34MHEXANE		1.0	0.1	1.2		1.02	0.48	1.27		12	2	14		8	1	9
3MHPTANE		0.9	0.1	1.1		0.92	0.48	1.16		11	2	13		7	1	8
25MC6		0.9	0.1	1.0		0.92	0.48	1.05		11	2	12		7	1	7
N OCTANE		0.5	0.0	0.6		0.51	0.00	0.63		6	0	7		4	0	4
23MC6		0.1	0.0	0.1		0.10	0.00	0.11		1	0	1		1	0	1
ETCYHEXANE		0.2	0.0	0.3		0.20	0.00	0.32		2	0	4		1	0	2
ET BENZENE		0.6	0.0	0.9		0.61	0.00	0.95		7	0	10		4	0	6
M+PXYLENE		2.0	0.1	3.2		2.04	0.48	3.38		23	2	36		14	1	22
24MC8		0.4	0.0	0.6		0.41	0.00	0.63		5	0	7		3	0	4
O XYLENE		0.8	0.0	1.3		0.82	0.00	1.37		9	0	14		6	0	9
N NONANE		0.3	0.0	0.4		0.31	0.00	0.42		4	0	5		2	0	3
IPRBENZENE		0.2	0.0	0.4		0.20	0.00	0.42		2	0	4		1	0	3
NPRBENZENE		0.1	0.0	0.2		0.10	0.00	0.21		1	0	2		1	0	1
1M3ETBENZ		0.5	0.0	0.8		0.51	0.00	0.84		6	0	9		4	0	6
1,3,5MEBENZ		0.2	0.0	0.3		0.20	0.00	0.32		2	0	3		1	0	2
1M2ETBENZ		0.4	0.0	0.5		0.41	0.00	0.53		5	0	6		3	0	3
124MBENZ		0.5	0.2	0.8		0.51	0.96	0.84		6	3	9		4	2	6
SBUBENZENE		0.0	0.0	0.2		0.00	0.00	0.21		0	0	2		0	0	1
N DECANE		0.0	0.0	0.1		0.00	0.00	0.11		0	0	1		0	0	1
123MBENZ		0.1	0.0	0.2		0.10	0.00	0.21		1	0	2		1	0	1
INDANE		0.0	0.0	0.2		0.00	0.00	0.21		0	0	2		0	0	1
13EBENZENE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
NBUBENZENE		0.0	0.0	0.1		0.00	0.00	0.11		0	0	1		0	0	1
1M3PRBENZ		0.0	0.0	0.2		0.00	0.00	0.21		0	0	2		0	0	1
UNKNOWNS		3.2	0.2	3.7		3.27	0.96	3.90		37	3	42		23	2	26

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80611
DATE RUN: 09 12 78 AIR CONDITIONER USED
CAR: 1980 MERCURY PROTOTYPE VIN: 8H92F5Y4951 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	122.1	23.8	62.1
GC PPMC	109.1	23.7	56.1

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
MAJOR COMPONENTS												
METHANE	19.2	9.2	12.3	17.60	38.82	21.93	268	131	160	167	82	100
SATURATES	55.7	9.4	26.5	51.05	39.66	47.24	697	120	309	433	75	192
OLEFINS	9.9	0.7	5.8	9.07	2.95	10.34	121	9	66	75	5	41
ACETYLENE	2.5	0.0	0.1	2.29	0.00	0.18	28	0	1	18	0	1
NAPTHENES	1.9	0.1	0.8	1.74	0.42	1.43	23	1	9	14	1	6
AROMATICS	16.5	3.5	9.4	15.12	14.77	16.76	189	41	101	118	25	63
BENZENE	3.2	0.5	1.8	2.93	2.11	3.21	36	6	19	23	4	12
TOLUENE	6.6	2.4	3.3	6.05	12.24	5.88	76	34	35	47	21	22
C8+AROM	6.7	0.1	4.3	6.14	0.42	7.66	78	1	47	49	1	29
UNKNOWN	3.4	0.8	1.2	0.00	0.00	0.00	40	10	13	25	6	8
INDIVIDUAL COMPONENTS												
METHANE	19.2	9.2	12.3	17.60	38.82	21.93	268	131	160	167	82	100
ETHYLENE	3.1	0.2	2.6	2.84	0.84	4.63	38	2	30	24	2	18
ETHANE	2.2	1.4	2.0	2.02	5.91	3.57	29	19	24	18	12	15
ACETYLENE	2.5	0.0	0.1	2.29	0.00	0.18	28	0	1	18	0	1
C3 + C3=	1.5	0.0	1.1	1.37	0.00	1.96	18	0	13	11	0	8
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.9	0.4	0.6	0.82	1.69	1.07	11	5	7	7	3	4
B1 + IB	0.7	0.0	0.0	0.64	0.00	0.00	9	0	0	5	0	0
NC4 +B=1=3	7.4	2.1	4.3	6.78	8.86	7.66	94	27	51	58	17	32
TBUTENE-2	0.4	0.1	0.3	0.37	0.42	0.53	5	1	3	3	1	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.3	0.1	0.3	0.27	0.42	0.53	4	1	3	2	1	2
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	7.5	1.8	3.4	6.87	7.59	6.06	94	23	40	59	14	25
PENTENE-1	0.2	0.0	0.1	0.18	0.00	0.18	2	0	1	2	0	1
2MBUT-1	0.2	0.0	0.1	0.18	0.00	0.18	2	0	1	2	0	1
NPENTANE	1.2	0.4	0.6	1.10	1.69	1.07	15	5	7	9	3	4
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80811
DATE RUN: 09 12 79 AIR CONDITIONER USED
CAR: 1980 MERCURY PROTOTYPE VIN: 9M92F579951 DRIVEN: WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPLNT=2	0.6	0.1	0.2	0.55	0.42	0.36	7	1	2	5	1	1
CISPLNT-2	0.3	0.0	0.1	0.27	0.00	0.18	4	0	1	2	0	1
2MBUT-2	1.1	0.2	0.5	1.01	0.84	0.89	13	2	6	8	2	4
22MBUTANE	0.2	0.0	0.1	0.18	0.00	0.18	3	0	1	2	0	1
CYPENTENE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.1	0.0	0.1	0.09	0.00	0.18	1	0	1	1	0	1
23MBUTANE	1.3	0.2	0.5	1.19	0.84	0.89	16	3	6	10	2	4
2MPENTANE	2.7	0.3	1.1	2.47	1.27	1.96	34	4	13	21	2	8
3MPENTANE	1.6	0.2	0.6	1.47	0.84	1.07	20	3	7	12	2	4
HEXENE-1	0.2	0.0	0.1	0.18	0.00	0.18	2	0	1	2	0	1
N HEXANE	1.0	0.1	0.4	0.92	0.42	0.71	13	1	5	8	1	3
TC6=3,=2	0.7	0.0	0.3	0.64	0.00	0.53	9	0	3	5	0	2
CC6=3	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.2	0.0	0.1	0.18	0.00	0.18	2	0	1	2	0	1
MCYP43M2C5	1.1	0.1	0.4	1.01	0.42	0.71	13	1	5	8	1	3
24MPENTANE	2.4	0.2	0.9	2.20	0.84	1.60	30	3	10	19	2	7
BENZENE	3.2	0.5	1.8	2.93	2.11	3.21	36	6	19	23	4	12
CYHEXANE	0.2	0.0	0.0	0.18	0.00	0.00	2	0	0	2	0	0
2MC6+23MC5	5.1	0.4	2.0	4.67	1.69	3.57	64	5	23	40	3	14
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.6	0.1	0.7	1.47	0.42	1.25	20	1	8	12	1	5
224MPENTAN	9.7	0.9	4.0	8.89	3.80	7.13	121	11	46	75	7	29
NHEPTANE	1.3	0.1	0.6	1.19	0.42	1.07	16	1	7	10	1	4
MCYHEXANE	0.3	0.0	0.2	0.27	0.00	0.36	4	0	2	2	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.9	0.1	0.8	1.74	0.42	1.43	24	1	9	15	1	6
234MC5	2.0	0.4	0.9	1.83	1.69	1.60	25	5	10	15	3	6
TOLUENE	6.6	2.9	3.3	6.05	12.24	5.88	76	34	35	47	21	22
23MC6+4MC7	1.0	0.1	0.5	0.92	0.42	0.89	12	1	6	8	1	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80811
DATE RUN: 09 12 78 AIR CONDITIONER USED
CAR: 1980 MERCURY PROTOTYPE VIN: 8M92F579951 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.2	0.1	0.6	1.10	0.42	1.07	15	1	7	9	1	4
3MHEPTANE	1.0	0.0	0.5	0.92	0.00	0.89	12	0	6	8	0	4
255MC6	0.9	0.0	0.5	0.82	0.00	0.89	11	0	6	7	0	4
N OCTANE	0.6	0.1	0.3	0.55	0.42	0.53	7	1	3	5	1	2
223MC6	0.1	0.0	0.1	0.09	0.00	0.18	1	0	1	1	0	1
ETCYHEXANE	0.2	0.0	0.1	0.18	0.00	0.18	2	0	1	2	0	1
ET BENZENE	0.7	0.0	0.5	0.64	0.00	0.89	8	0	5	5	0	3
M+PXYLENE	2.4	0.1	1.5	2.20	0.42	2.67	28	1	16	17	1	10
244MC6	0.5	0.0	0.3	0.46	0.00	0.53	6	0	3	4	0	2
O XYLENE	1.0	0.0	0.6	0.92	0.00	1.07	12	0	8	7	0	4
N NONANE	0.3	0.0	0.2	0.27	0.00	0.36	4	0	2	2	0	1
IPRBENZENE	0.3	0.0	0.2	0.27	0.00	0.36	3	0	2	2	0	1
NPRBENZENE	0.1	0.0	0.1	0.09	0.00	0.18	1	0	1	1	0	1
1M3ETBENZ	0.6	0.0	0.4	0.55	0.00	0.71	7	0	4	4	0	3
135MEBENZ	0.2	0.0	0.2	0.18	0.00	0.36	2	0	2	1	0	1
1M2ETBENZ	0.4	0.0	0.3	0.37	0.00	0.53	5	0	3	3	0	2
124MBENZ	0.5	0.0	0.3	0.46	0.00	0.53	6	0	3	4	0	2
SBUBENZENE	0.1	0.0	0.1	0.09	0.00	0.18	1	0	1	1	0	1
N DECANE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.1	0.0	0.1	0.09	0.00	0.18	1	0	1	1	0	1
INDANE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
13EBLENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
UNKNOWNS	3.4	0.8	1.2	3.12	3.38	2.14	40	10	13	25	6	8

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80901
DATE RUN: 09 01 78
CAR: 1980 MERCURY PROTOTYPE VIN: 8H92F579951 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	171.2	27.2	102.7
GC PPMC	162.0	24.7	100.2

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	22.2	8.8	16.1	13.70	35.63	16.07	295	147	200	184	91	124
SATURATES	83.7	12.8	53.9	51.67	51.82	53.79	997	192	600	620	119	373
OLEFINS	14.9	1.2	8.8	9.20	4.86	8.78	173	18	96	108	11	59
ACETYLENE	9.0	0.0	0.1	5.56	0.00	0.10	97	0	1	60	0	1
NAPTHENES	3.1	0.2	1.8	1.91	0.81	1.80	36	3	20	22	2	12
AROMATICS	23.3	1.3	14.9	14.38	5.26	14.87	255	18	152	158	11	95
BENZENE	4.8	0.4	2.6	2.96	1.62	2.59	52	5	26	32	3	16
TOLUENE	9.1	0.7	4.8	5.62	2.83	4.79	99	10	49	62	6	30
C8+AROM	9.4	0.2	7.5	5.80	0.81	7.49	104	3	78	65	2	48
UNKNOWN	5.8	0.4	4.6	0.00	0.00	0.00	65	6	48	40	3	30
INDIVIDUAL COMPONENTS												
METHANE	22.2	8.8	16.1	13.70	35.63	16.07	295	147	200	184	91	124
ETHYLENE	5.1	0.3	4.1	3.15	1.21	4.09	59	4	45	37	3	28
ETHANE	2.6	1.7	2.6	1.60	6.88	2.59	32	27	30	20	17	19
ACETYLENE	9.0	0.0	0.1	5.56	0.00	0.10	97	0	1	60	0	1
C3 + C3=	2.0	0.3	1.1	1.23	1.21	1.10	23	4	12	14	3	7
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	2.0	0.7	1.8	1.23	2.83	1.80	24	11	20	15	7	13
B1 + 1B	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NC4 +B=1=3	13.8	3.3	9.4	8.52	13.36	9.38	166	50	106	103	31	66
TBUTENE-2	0.7	0.1	0.5	0.43	0.40	0.50	8	1	5	5	1	3
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.5	0.1	0.5	0.31	0.40	0.50	6	1	5	4	1	3
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.1	0.12	0.00	0.10	2	0	1	1	0	1
ISOPENTANE	12.8	2.8	8.2	7.90	11.34	8.18	153	42	92	95	26	57
PENTENE-1	0.3	0.0	0.0	0.19	0.00	0.00	3	0	0	2	0	0
2MBUT-1	0.4	0.0	0.1	0.25	0.00	0.10	5	0	1	3	0	1
NPENTANE	2.0	0.6	1.6	1.23	2.43	1.60	24	9	18	15	6	11
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80901
DATE RUN: 09 01 76
CAR: 1980 MERCURY PROTOTYPE VIN: 8H92F579951 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT-2	1.1	0.1	0.4	0.66	0.40	0.40	13	1	4	8	1	3
CISPENT-2	0.5	0.0	0.2	0.31	0.00	0.20	6	0	2	4	0	1
2MBUT-2	2.0	0.3	0.9	1.23	1.21	0.90	23	4	10	14	3	6
22MBUTANE	0.0	0.0	0.2	0.00	0.00	0.20	0	0	2	0	0	1
CYPFNTENE	0.2	0.0	0.1	0.12	0.00	0.10	2	0	1	1	0	1
3MPENTENE	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.3	0.0	0.2	0.19	0.00	0.20	3	0	2	2	0	1
23MBUTANE	2.2	0.3	1.1	1.36	1.21	1.10	26	4	12	16	3	8
2MPENTANE	4.2	0.7	2.5	2.59	2.83	2.50	50	10	28	31	7	17
3MPENTANE	2.4	0.3	1.3	1.48	1.21	1.30	29	4	14	18	3	9
HEXENE-1	0.3	0.0	0.2	0.19	0.00	0.20	3	0	2	2	0	1
N HEXANE	1.5	0.1	0.7	0.93	0.40	0.70	18	1	8	11	1	5
TC6=3.=2	0.9	0.0	0.5	0.56	0.00	0.50	10	0	5	7	0	3
CC6=3	0.2	0.0	0.1	0.12	0.00	0.10	2	0	1	1	0	1
2MPENTENE2	0.4	0.0	0.0	0.25	0.00	0.00	5	0	0	3	0	0
MCYP43M2C5	1.7	0.2	1.0	1.05	0.81	1.00	20	3	11	12	2	7
24MPENTANE	3.6	0.2	1.8	2.22	0.81	1.80	43	3	20	27	2	12
BENZENE	4.8	0.4	2.6	2.96	1.62	2.59	52	5	26	32	3	16
CYHEXANE	0.3	0.0	0.1	0.19	0.00	0.10	3	0	1	2	0	1
2MC6+23MC5	7.5	0.4	4.0	4.63	1.62	3.99	89	6	44	55	4	28
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.3	0.1	1.2	1.42	0.40	1.20	27	1	13	17	1	8
224MPENTAN	13.2	0.9	8.0	8.15	3.64	7.98	156	13	89	97	8	55
NHEPTANE	1.9	0.1	1.0	1.17	0.40	1.00	23	1	11	14	1	7
MCYHEXANE	0.5	0.0	0.3	0.31	0.00	0.30	6	0	3	4	0	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+23M	2.3	0.1	1.6	1.42	0.40	1.60	27	1	16	17	1	11
234MC5	2.6	0.1	1.8	1.60	0.40	1.80	31	1	20	19	1	12
TOLUENE	9.1	0.7	4.8	5.62	2.83	4.79	99	10	49	62	6	30
23MC6+4MC7	1.2	0.1	0.8	0.74	0.40	0.80	14	1	9	9	1	6

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: H0901
DATE RUN: 09 01 78
CAR: 1980 MERCURY PHOTOTYPE VIN: 8H92F579951 DRIVER: WAND FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
3 METHYLHEXANE		1.4	0.1	1.0		0.86	0.40	1.00		17	1	11		10	1	7
[illegible]PTANE		1.2	0.1	0.9		0.74	0.40	0.90		14	1	10		9	1	6
2,5-DMHEX		1.3	0.1	0.9		0.80	0.40	0.90		15	1	10		10	1	6
N OCTANE		0.7	0.0	0.5		0.43	0.00	0.50		8	0	6		5	0	3
2,2,3-TMHEX		0.1	0.0	0.1		0.06	0.00	0.10		1	0	1		1	0	1
ETCYHEXANE		0.3	0.0	0.2		0.19	0.00	0.20		3	0	2		2	0	1
ET BENZENE		1.0	0.0	0.7		0.62	0.00	0.70		11	0	7		7	0	4
M+PXYLENE		3.3	0.1	2.4		2.04	0.40	2.40		36	1	25		23	1	15
2,4-DMHEX		0.5	0.0	0.5		0.31	0.00	0.50		6	0	6		4	0	3
O XYLENE		1.3	0.1	0.9		0.80	0.40	0.90		14	1	9		9	1	6
N NONANE		0.3	0.0	0.3		0.19	0.00	0.30		4	0	3		2	0	2
IPROPBENZ		0.3	0.0	0.3		0.19	0.00	0.30		3	0	3		2	0	2
M-ETTOL		0.2	0.0	0.2		0.12	0.00	0.20		2	0	2		1	0	1
1M3ETBENZ		0.9	0.0	0.8		0.56	0.00	0.80		10	0	8		6	0	5
1,3,5-TMBENZ		0.3	0.0	0.3		0.19	0.00	0.30		3	0	3		2	0	2
1M2ETBENZ		0.5	0.0	0.5		0.31	0.00	0.50		6	0	5		3	0	3
1,2,4-TMBENZ		0.9	0.0	0.9		0.56	0.00	0.90		10	0	9		6	0	6
SBUTLBENZ		0.2	0.0	0.2		0.12	0.00	0.20		2	0	2		1	0	1
N DECANE		0.1	0.0	0.1		0.06	0.00	0.10		1	0	1		1	0	1
1,2,3-TMBENZ		0.3	0.0	0.3		0.19	0.00	0.30		3	0	3		2	0	2
INDANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
1,3-DEBENZENE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
NBUBENZENE		0.1	0.0	0.0		0.06	0.00	0.00		1	0	0		1	0	0
1M3PRBENZ		0.1	0.0	0.0		0.06	0.00	0.00		1	0	0		1	0	0
UNKNOWNS		5.8	0.4	4.6		3.58	1.62	4.59		65	6	48		40	3	30

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80911
DATE RUN: 08 05 78 AIR CONDITIONER USED
CAR: 1980 MERCURY PROTOTYPE VIN: 8M92F579951 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	201.6	26.8	121.9
GC PPMC	194.7	25.9	115.6

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	23.6	10.7	17.7	12.12	41.31	15.31						
SATURATES	100.9	10.8	65.4	51.82	41.70	56.57	295	116	224	184	72	139
OLEFINS	17.8	2.5	11.1	9.14	9.65	9.60	1131	105	739	703	65	460
ACETYLENE	4.5	0.0	0.3	2.31	0.00	0.26	195	24	123	121	15	76
NAPTHENES	4.0	0.2	2.2	2.05	0.77	1.90	46	0	3	28	0	2
							44	2	24	27	1	15
AROMATICS	34.9	1.2	15.3	17.92	4.63	13.24						
BENZENE	5.4	0.6	2.1	2.77	2.32	1.82	359	11	159	223	7	99
TULUENE	12.8	0.4	5.3	6.57	1.54	4.58	55	5	22	34	3	13
C8+AROM	16.7	0.2	7.9	8.58	0.77	6.83	132	4	55	82	2	34
UNKNOWN	9.0	0.5	3.6	0.00	0.00	0.00	174	2	83	108	1	52
							94	5	38	59	3	24
INDIVIDUAL COMPONENTS												
METHANE	23.6	10.7	17.7	12.12	41.31	15.31	295	116	224	184	72	139
ETHYLENE	5.7	1.4	4.3	2.93	5.41	3.72	62	13	47	39	8	30
ETHANE	2.5	0.0	2.4	1.28	0.00	2.08	29	0	28	18	0	18
ACETYLENE	4.5	0.0	0.3	2.31	0.00	0.26	46	0	3	28	0	2
C3 + C3=	2.3	0.1	0.2	1.18	0.39	0.17	25	1	2	16	1	1
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.9	0.7	0.8	0.98	2.70	0.69	22	7	9	13	4	6
B1 + IB	1.0	0.0	2.0	0.51	0.00	1.73	11	0	22	7	0	14
NC4 +B=1=3	12.7	3.4	11.2	6.52	13.13	9.69	144	33	128	90	21	80
TBUTENE-2	0.8	0.2	0.7	0.41	0.77	0.61	9	2	8	5	1	5
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.7	0.2	0.6	0.36	0.77	0.52	6	2	7	5	1	4
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.1	0.10	0.00	0.09	2	0	1	1	0	1
ISOPENTANE	12.6	2.7	10.1	6.47	10.42	8.74	142	26	115	88	16	71
PLNTLNE-1	0.4	0.0	0.2	0.21	0.00	0.17	4	0	2	3	0	1
2MBUT-1	0.8	0.0	0.3	0.41	0.00	0.26	9	0	3	5	0	2
NPENTANE	2.2	0.6	1.6	1.13	2.32	1.38	25	6	18	15	4	11
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80911
DATE RUN: 08 05 76 AIR CONDITIONER USED
CAR: 1980 MERCURY PROTOTYPE VIN: 6H92F579951 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.0	0.1	0.5	0.51	0.39	0.43	11	1	6	7	1	3
CISPENT-2	0.5	0.0	0.2	0.26	0.00	0.17	5	0	2	3	0	1
2MBUT-2	1.9	0.4	1.0	0.98	1.54	0.87	21	4	11	13	2	7
22MBUTANE	0.0	0.0	0.1	0.00	0.00	0.09	0	0	1	0	0	1
CYPENTENE	0.2	0.0	0.1	0.10	0.00	0.09	2	0	1	1	0	1
3MPENTENE	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.2	0.0	0.2	0.10	0.00	0.17	2	0	2	1	0	1
23MBUTANE	2.2	0.2	1.3	1.13	0.77	1.12	25	2	15	15	1	9
2MPENTANE	4.8	0.7	2.9	2.47	2.70	2.51	54	7	33	33	4	20
3MPENTANE	2.7	0.3	1.6	1.39	1.16	1.38	30	3	18	19	2	11
HEXENE-1	0.6	0.1	0.2	0.31	0.39	0.17	7	1	2	4	1	1
N HEXANE	1.7	0.0	0.9	0.87	0.00	0.78	19	0	10	12	0	6
TC6=3,=2	1.0	0.0	0.5	0.51	0.00	0.43	11	0	6	7	0	3
CC6=3	0.2	0.0	0.1	0.10	0.00	0.09	2	0	1	1	0	1
2MPENTENE2	0.4	0.0	0.1	0.21	0.00	0.09	4	0	1	3	0	1
MCYP43M2C5	2.0	0.2	1.1	1.03	0.77	0.95	22	2	12	14	1	8
24MPENTANE	4.2	0.2	2.3	2.16	0.77	1.99	47	2	26	29	1	16
BENZENE	5.4	0.6	2.1	2.77	2.32	1.82	55	5	22	34	3	13
CYHEXANE	0.4	0.0	0.2	0.21	0.00	0.17	4	0	2	3	0	1
2MC6+23MC5	9.3	0.4	5.1	4.78	1.54	4.41	104	4	57	65	2	36
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.0	0.1	1.6	1.54	0.39	1.38	34	1	18	21	1	11
224MPLNTAN	18.1	0.8	10.4	9.30	3.09	9.00	202	8	117	125	5	73
NHEPTANE	2.6	0.1	1.3	1.34	0.39	1.12	29	1	15	18	1	9
MCYHEXANE	0.8	0.0	0.4	0.41	0.00	0.35	9	0	4	5	0	3
25MHEXANE	1.9	0.0	0.0	0.98	0.00	0.00	21	0	0	13	0	0
24MC6+233M	2.0	0.1	2.2	1.03	0.39	1.90	22	1	25	14	1	15
234MC5	4.6	0.1	2.5	2.36	0.39	2.16	51	1	28	32	1	17
TOLUENE	12.8	0.4	5.3	6.57	1.54	4.58	132	4	55	82	2	34
23MC6+4MC7	2.0	0.1	1.1	1.03	0.39	0.95	22	1	12	14	1	8

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 80911
DATE RUN: 08 05 78 AIR CONDITIONER USED
CAR: 1980 MERCURY PROTOTYPE VIN: 8H92F579951 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	X OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	2.4	0.1	1.4	1.23	0.39	1.21	27	1	16	17	1	10
3MHEPTANE	2.1	0.1	1.2	1.08	0.39	1.04	23	1	13	15	1	8
255MC6	2.2	0.1	1.3	1.13	0.39	1.12	24	1	15	15	1	9
N OCTANE	1.2	0.0	0.7	0.62	0.00	0.61	13	0	8	8	0	5
223MC6	0.3	0.0	0.2	0.15	0.00	0.17	3	0	2	2	0	1
ETCYHEXANE	0.6	0.0	0.3	0.31	0.00	0.26	7	0	3	4	0	2
ET BENZENE	1.8	0.0	0.7	0.92	0.00	0.61	19	0	7	12	0	5
MPXYLENE	5.6	0.1	2.6	2.88	0.39	2.25	58	1	27	36	1	17
244MC8	1.0	0.0	0.7	0.51	0.00	0.61	11	0	8	7	0	5
O XYLENE	2.3	0.1	1.0	1.18	0.39	0.87	24	1	10	15	1	6
N NONANE	0.6	0.0	0.4	0.31	0.00	0.35	7	0	4	4	0	3
IPRBENZENE	0.7	0.0	0.4	0.36	0.00	0.35	7	0	4	5	0	3
NPRBENZENE	0.4	0.0	0.1	0.21	0.00	0.09	4	0	1	3	0	1
1M3ETBENZ	1.5	0.0	0.8	0.77	0.00	0.69	16	0	8	10	0	5
135MEBENZ	0.5	0.0	0.4	0.26	0.00	0.35	5	0	4	3	0	3
1M2ETBENZ	0.9	0.0	0.7	0.46	0.00	0.61	9	0	7	6	0	5
124MBENZ	1.4	0.0	0.8	0.72	0.00	0.69	15	0	8	9	0	5
SBUBENZENE	0.3	0.0	0.2	0.15	0.00	0.17	3	0	2	2	0	1
N DECANE	0.1	0.0	0.1	0.05	0.00	0.09	1	0	1	1	0	1
123MBENZ	0.4	0.0	0.2	0.21	0.00	0.17	4	0	2	3	0	1
INDANE	0.2	0.0	0.0	0.10	0.00	0.00	2	0	0	1	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.3	0.0	0.0	0.15	0.00	0.00	3	0	0	2	0	0
1M3PRBENZ	0.4	0.0	0.0	0.21	0.00	0.00	4	0	0	3	0	0
UNKNOWNS	9.0	0.5	3.6	4.62	1.93	3.11	94	5	38	59	3	24

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 81101
DATE RUN: 09 07 78
CAR: 1980 MERCURY PROTOTYPE VIN: 8M92F579951 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION BAG1 BAG2 BAG3
FID PPMC 333.9 23.2 169.4
GC PPMC 251.5 19.5 165.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	20.8	8.9	19.3	8.27	45.64	11.66	326	129	251	203	80	156
SATURATES	133.5	8.3	85.2	53.08	42.56	51.54	1876	108	992	1166	67	616
OLEFINS	22.5	0.6	14.3	6.95	4.10	8.65	309	10	163	192	6	101
ACETYLENE	6.4	0.0	0.2	2.54	0.00	0.12	82	0	2	51	0	1
NAPTHENES	5.4	0.1	3.5	2.15	0.51	2.12	74	1	40	46	1	25
AROMATICS	51.2	0.8	31.7	20.36	4.10	19.18	660	10	358	410	6	210
BENZENE	8.3	0.4	3.4	2.50	2.05	2.06	80	5	36	50	3	22
TOLUENE	20.0	0.4	10.0	7.95	2.05	6.05	258	5	107	160	3	66
C8+AROM	24.9	0.0	18.3	9.90	0.00	11.07	326	0	199	203	0	123
UNKNOWN	11.7	0.6	11.1	0.00	0.00	0.00	154	7	121	95	5	75
INDIVIDUAL COMPONENTS												
METHANE	20.8	8.9	19.3	8.27	45.64	11.66	326	129	251	203	80	156
ETHYLENE	6.6	0.2	7.1	2.62	1.03	4.30	91	3	81	56	2	50
ETHANE	2.3	1.6	2.7	0.91	8.21	1.63	34	22	33	21	14	20
ACETYLENE	6.4	0.0	0.2	2.54	0.00	0.12	82	0	2	51	0	1
C3 + C3=	2.6	0.1	1.5	1.03	0.51	0.91	36	1	17	22	1	11
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.5	0.3	1.2	0.60	1.54	0.73	21	4	14	13	2	9
B1 + IB	1.2	0.0	0.0	0.46	0.00	0.00	16	0	0	10	0	0
NC4 +B=1=3	13.5	2.1	9.8	5.37	10.77	5.93	192	28	115	119	17	72
TBUTENE-2	0.7	0.1	0.6	0.28	0.51	0.36	10	1	7	6	1	4
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.6	0.1	0.7	0.24	0.51	0.42	8	1	8	5	1	5
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.1	0.08	0.00	0.06	3	0	1	2	0	1
ISOPENTANE	14.7	1.6	9.4	5.84	8.21	5.69	208	21	110	129	13	68
PENTENE-1	0.5	0.0	0.1	0.20	0.00	0.06	7	0	1	4	0	1
2MBUT-1	0.5	0.0	0.2	0.20	0.00	0.12	7	0	2	4	0	1
NPENTANE	2.5	0.4	1.7	0.99	2.05	1.03	35	5	20	22	3	12
2MB=1=3	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 81101
DATE RUN: 09 07 78
CAR: 1980 MERCURY PROTOTYPE VIN: 8H92F579951 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.4	0.1	0.6	0.56	0.51	0.36	19	1	7	12	1	4
CISPENT-2	0.7	0.0	0.2	0.28	0.00	0.12	10	0	2	6	0	1
2MBUT-2	3.0	0.2	1.3	1.19	1.03	0.79	41	3	15	26	2	9
22MBUTANE	0.0	0.0	0.3	0.00	0.00	0.18	0	0	3	0	0	2
CYPENTENE	0.3	0.0	0.1	0.12	0.00	0.06	4	0	1	2	0	1
3MPENTENE	0.2	0.0	0.0	0.08	0.00	0.00	3	0	0	2	0	0
CYPENTANE	0.3	0.0	0.2	0.12	0.00	0.12	4	0	2	3	0	1
23MBUTANE	3.0	0.1	1.7	1.19	0.51	1.03	42	1	20	26	1	12
2MPENTANE	6.2	0.3	3.3	2.47	1.54	2.00	87	4	38	54	2	24
3MPENTANE	3.7	0.2	2.2	1.47	1.03	1.33	52	3	26	32	2	16
HEXENE-1	0.5	0.0	0.3	0.20	0.00	0.18	7	0	3	4	0	2
N HEXANE	2.4	0.1	1.3	0.95	0.51	0.79	34	1	15	21	1	9
TC6=3,=2	2.3	0.0	1.1	0.91	0.00	0.67	32	0	13	20	0	8
CC6=3	0.4	0.0	0.2	0.16	0.00	0.12	5	0	2	3	0	1
2MPENTENE2	0.7	0.0	0.2	0.28	0.00	0.12	10	0	2	6	0	1
MCYP43M2C5	2.8	0.1	1.7	1.11	0.51	1.03	38	1	19	24	1	12
24MPENTANE	6.2	0.1	3.6	2.47	0.51	2.18	87	1	42	54	1	26
BENZENE	6.3	0.4	3.4	2.50	2.05	2.06	80	5	36	50	3	22
CYHEXANE	0.5	0.0	0.3	0.20	0.00	0.18	7	0	3	4	0	2
2MC6+23MC5	14.1	0.3	8.1	5.61	1.54	4.90	197	4	94	123	2	58
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	4.5	0.1	2.6	1.79	0.51	1.57	63	1	30	39	1	19
224MPENTAN	26.1	0.7	15.8	10.38	3.59	9.56	365	9	183	227	6	114
NHEPTANE	4.2	0.0	2.2	1.67	0.00	1.33	59	0	26	37	0	16
MCYHEXANE	1.1	0.0	0.7	0.44	0.00	0.42	15	0	8	9	0	5
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	5.7	0.1	3.5	2.27	0.51	2.12	80	1	40	49	1	25
234MC5	6.4	0.1	3.9	2.54	0.51	2.36	89	1	45	56	1	28
TOLUENE	20.0	0.4	10.0	7.95	2.05	6.05	258	5	107	160	3	66
23MC6+4MC7	2.6	0.1	1.8	1.11	0.51	1.09	39	1	21	24	1	13

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 81101
DATE RUN: 09 07 78
CAR: 1980 MERCURY PROTOTYPE VIN: 8M92F579951 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	3.4	0.1	2.2	1.35	0.51	1.33	47	1	25	30	1	16
3MHEPTANE	3.1	0.0	2.1	1.23	0.00	1.27	43	0	24	27	0	15
255MC6	2.8	0.0	1.9	1.11	0.00	1.15	39	0	22	24	0	14
N OCTANE	1.8	0.0	1.3	0.72	0.00	0.79	25	0	15	16	0	9
223MC6	0.4	0.0	0.3	0.16	0.00	0.18	6	0	3	3	0	2
ETCYHEXANE	0.7	0.0	0.6	0.28	0.00	0.36	10	0	7	6	0	4
ET BENZENE	2.6	0.0	1.6	1.03	0.00	0.97	34	0	17	21	0	11
M+PXYLENE	9.2	0.0	5.6	3.66	0.00	3.39	119	0	60	74	0	37
244MC8	1.3	0.0	1.2	0.52	0.00	0.73	18	0	14	11	0	9
O XYLENE	3.6	0.0	2.3	1.43	0.00	1.39	47	0	25	29	0	15
N NONANE	0.6	0.0	0.8	0.32	0.00	0.48	11	0	9	7	0	6
IPRBENZENE	0.8	0.0	0.1	0.32	0.00	0.06	10	0	1	6	0	1
NPRBENZENE	0.5	0.0	0.4	0.20	0.00	0.24	7	0	4	4	0	3
1M3ETBENZ	2.2	0.0	1.9	0.87	0.00	1.15	29	0	21	18	0	13
135MEBENZ	0.9	0.0	0.8	0.36	0.00	0.48	12	0	9	7	0	5
1M2ETHENZ	0.9	0.0	1.2	0.36	0.00	0.73	12	0	13	7	0	8
124MBENZ	2.3	0.0	2.1	0.91	0.00	1.27	30	0	23	19	0	14
SBUBENZENE	0.3	0.0	0.4	0.12	0.00	0.24	4	0	4	2	0	3
N DECANE	0.1	0.0	0.3	0.04	0.00	0.18	1	0	3	1	0	2
123MBENZ	0.5	0.0	0.6	0.20	0.00	0.36	7	0	6	4	0	4
INDANE	0.2	0.0	0.4	0.08	0.00	0.24	3	0	4	2	0	3
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.4	0.0	0.3	0.16	0.00	0.18	5	0	3	3	0	2
1M3PRBENZ	0.5	0.0	0.6	0.20	0.00	0.36	7	0	7	4	0	4
UNKNOWNS	11.7	0.6	11.1	4.65	3.08	6.72	154	7	121	95	5	75

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 81102
DATE RUN: 09 08 78
CAR: 1980 MERCURY PROTOTYPE VIN: 8M92F579951 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	247.8	23.0	71.4
GC PPMC	238.5	17.9	66.8

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	20.1	7.1	16.2	8.43	39.66	24.25	270	127	205	168	79	128
SATURATES	119.0	7.9	29.0	49.90	44.13	43.41	1432	127	329	890	79	204
OLEFINS	23.9	0.6	8.5	10.02	3.35	12.72	281	9	94	175	6	59
ACETYLENE	6.5	0.0	0.2	2.73	0.00	0.30	71	0	2	44	0	1
NAPTHENES	4.8	0.1	1.4	2.01	0.56	2.10	56	2	16	35	1	10
AROMATICS	52.3	1.3	10.0	21.93	7.26	14.97	577	19	104	359	12	65
BENZENE	5.6	0.3	2.2	2.35	1.68	3.29	61	4	23	38	3	14
TOLUENE	18.6	0.8	3.3	7.80	4.47	4.94	205	12	34	128	7	21
C8+ARUM	28.1	0.2	4.5	11.78	1.12	6.74	315	3	48	196	2	30
UNKNOWN	11.9	0.9	1.5	0.00	0.00	0.00	134	13	16	83	8	10
INDIVIDUAL COMPONENTS												
METHANE	20.1	7.1	16.2	8.43	39.66	24.25	270	127	205	168	79	128
ETHYLENE	6.2	0.1	4.2	2.60	0.56	6.29	73	2	47	45	1	29
ETHANE	2.4	1.1	2.4	1.01	6.15	3.59	30	18	28	19	11	18
ACETYLENE	6.5	0.0	0.2	2.73	0.00	0.30	71	0	2	44	0	1
C3 + C3=	2.7	0.1	1.0	1.13	0.56	1.50	32	2	11	20	1	7
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.2	0.4	0.7	0.50	2.23	1.05	15	6	8	9	4	5
B1 + IB	1.0	0.0	0.0	0.42	0.00	0.00	12	0	0	7	0	0
NC4 +B=1=3	11.1	1.8	5.2	4.65	10.06	7.76	135	29	60	84	18	37
TBUTENE-2	0.7	0.1	0.4	0.29	0.56	0.60	8	2	4	5	1	3
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.6	0.1	0.5	0.25	0.56	0.75	7	2	6	4	1	3
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.1	0.08	0.00	0.15	2	0	1	1	0	1
ISOPENTANE	12.6	1.6	4.3	5.28	8.94	6.44	152	26	49	95	16	30
PENTENE-1	0.4	0.0	0.1	0.17	0.00	0.15	5	0	1	3	0	1
2MBUT-1	0.6	0.0	0.1	0.25	0.00	0.15	7	0	1	4	0	1
NPENTANE	2.2	0.5	0.8	0.92	2.79	1.20	27	8	9	17	5	6
2MB=1=3	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 81102
DATE RUN: 09 08 78
CAR: 1980 MERCURY PROTOTYPE VIN: 8M92F579951 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.3	0.1	0.3	0.55	0.56	0.45	15	2	3	9	1	2
CISPENT-2	0.6	0.0	0.1	0.25	0.00	0.15	7	0	1	4	0	1
2MBUT-2	2.6	0.1	0.6	1.09	0.56	0.90	31	2	7	19	1	4
22MBUTANE	0.5	0.0	0.1	0.21	0.00	0.15	6	0	1	4	0	1
CYPENTENE	0.3	0.0	0.1	0.13	0.00	0.15	3	0	1	2	0	1
3MPENTENE	0.2	0.0	0.0	0.08	0.00	0.00	2	0	0	1	0	0
CYPENTANE	0.2	0.0	0.1	0.08	0.00	0.15	2	0	1	1	0	1
23MBUTANE	2.5	0.1	0.6	1.05	0.56	0.90	30	2	7	19	1	4
2MPENTANE	5.4	0.5	1.2	2.26	2.79	1.80	65	8	14	40	5	8
3MPENTANE	3.1	0.2	0.7	1.30	1.12	1.05	37	3	8	23	2	5
HEXENE-1	0.6	0.0	0.0	0.25	0.00	0.00	7	0	0	4	0	0
N HEXANE	2.0	0.1	0.4	0.84	0.56	0.60	24	2	5	15	1	3
TC6=3.=2	4.9	0.0	0.4	2.05	0.00	0.60	58	0	4	36	0	3
CC6=3	0.4	0.0	0.1	0.17	0.00	0.15	5	0	1	3	0	1
2MPENTENE2	0.5	0.0	0.5	0.21	0.00	0.75	6	0	6	4	0	3
MCYP43M2C5	2.4	0.1	1.0	1.01	0.56	1.50	28	2	11	18	1	7
24MPENTANE	5.2	0.1	2.0	2.18	0.56	2.99	62	2	23	39	1	14
BENZENE	5.6	0.3	2.2	2.35	1.68	3.29	61	4	23	38	3	14
CYHEXANE	0.4	0.0	0.0	0.17	0.00	0.00	5	0	0	3	0	0
2MC6+23MC5	11.9	0.2	0.7	4.99	1.12	1.05	143	3	8	89	2	5
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.8	0.1	0.1	1.59	0.56	0.15	46	2	1	28	1	1
224MPENTAN	22.8	0.5	4.3	9.56	2.79	6.44	273	8	48	169	5	30
NHEPTANE	3.7	0.1	0.6	1.55	0.56	0.90	44	2	7	28	1	4
MCYHEXANE	1.0	0.0	0.2	0.42	0.00	0.30	12	0	2	7	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	5.2	0.1	0.9	2.18	0.56	1.35	62	2	10	39	1	6
234MC5	6.0	0.1	1.0	2.52	0.56	1.50	72	2	11	45	1	7
TOLUENE	18.6	0.8	3.3	7.80	4.47	4.94	205	12	34	128	7	21
23MC6+4MC7	2.7	0.1	0.5	1.13	0.56	0.75	32	2	6	20	1	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 61102
DATE RUN: 09 08 76
CAR: 1980 MERCURY PROTOTYPE VIN: 8H92F579951 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	3.3	0.1	0.6	1.38	0.56	0.90	39	2	7	25	1	4
3MHEPTANE	3.1	0.1	0.5	1.30	0.56	0.75	37	2	6	23	1	4
255MC6	2.7	0.0	0.5	1.13	0.00	0.75	32	0	6	20	0	3
N OCTANE	2.6	0.0	0.3	1.09	0.00	0.45	31	0	3	19	0	2
223MC6	0.4	0.0	0.1	0.17	0.00	0.15	5	0	1	3	0	1
ETCYHEXANE	0.8	0.0	0.1	0.34	0.00	0.15	9	0	1	6	0	1
ET BENZENE	2.8	0.0	0..	1.17	0.00	0.75	31	0	5	19	0	3
M+PXYLENE	10.0	0.1	1.5	4.19	0.56	2.25	111	1	16	69	1	10
244MC8	1.5	0.1	0.3	0.63	0.56	0.45	18	2	3	11	1	2
O XYLENE	4.0	0.1	0.6	1.68	0.56	0.90	44	1	6	28	1	4
N NONANE	0.9	0.0	0.2	0.38	0.00	0.30	11	0	2	7	0	1
IPRBENZENE	1.0	0.0	0.2	0.42	0.00	0.30	11	0	2	7	0	1
NPRBENZENE	0.7	0.0	0.1	0.29	0.00	0.15	8	0	1	5	0	1
1M3ETBENZ	2.6	0.0	0.5	1.09	0.00	0.75	29	0	5	18	0	3
135MEBENZ	1.0	0.0	0.2	0.42	0.00	0.30	11	0	2	7	0	1
1M2ETBENZ	1.1	0.0	0.3	0.46	0.00	0.45	12	0	3	8	0	2
124MBENZ	2.7	0.0	0.4	1.13	0.00	0.60	30	0	4	19	0	3
SBUBENZENE	0.4	0.0	0.1	0.17	0.00	0.15	4	0	1	3	0	1
N DECANE	0.2	0.0	0.0	0.08	0.00	0.00	2	0	0	1	0	0
123MBENZ	0.6	0.0	0.1	0.25	0.00	0.15	7	0	1	4	0	1
INDANE	0.2	0.0	0.0	0.08	0.00	0.00	2	0	0	1	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.4	0.0	0.0	0.17	0.00	0.00	4	0	0	3	0	0
1M3PRBENZ	0.6	0.0	0.0	0.25	0.00	0.00	7	0	0	4	0	0
UNKNOWNS	11.9	0.9	1.5	4.99	5.03	2.25	134	13	16	83	8	10

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 81111
DATE RUN: 09 06 78 AIR CONDITIONER USED
CAR: 1980 MERCURY PROTOTYPE VIN: 8M92F579951 DRIVEN: SWARTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	145.9	26.3	100.7
GC PPMC	129.9	23.9	99.0

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	17.0	11.3	21.0	13.09	47.28	21.21	226	132	248	140	82	154
SATURATES	62.2	10.4	50.8	47.88	43.51	51.31	739	109	538	460	68	334
OLEFINS	12.5	0.9	8.5	9.62	3.77	8.59	145	9	88	90	6	55
ACETYLENE	3.3	0.0	0.0	2.54	0.00	0.00	36	0	0	22	0	0
NAPTHENES	2.4	0.1	1.7	1.85	0.42	1.72	28	1	18	17	1	11
AROMATICS	26.8	1.2	13.7	20.63	5.02	13.84	292	12	133	182	7	83
BENZENE	3.7	0.5	2.2	2.85	2.09	2.22	40	5	21	25	3	13
TOLUENE	9.5	0.5	4.3	7.31	2.09	4.34	104	5	42	64	3	26
C8+AROM	13.6	0.2	7.2	10.47	0.84	7.27	151	2	71	94	1	44
UNKNOWN	5.7	0.0	3.3	0.00	0.00	0.00	63	0	33	39	0	20
INDIVIDUAL COMPONENTS												
METHANE	17.0	11.3	21.0	13.09	47.28	21.21	226	132	248	140	82	154
ETHYLENE	4.4	0.2	3.5	3.39	0.84	3.54	51	2	36	32	1	22
ETHANE	2.0	1.3	2.8	1.54	5.44	2.83	25	14	31	15	9	19
ACETYLENE	3.3	0.0	0.0	2.54	0.00	0.00	36	0	0	22	0	0
C3 + C3=	2.5	0.1	1.0	1.92	0.42	1.01	29	1	10	18	1	6
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.4	0.7	1.7	1.06	2.93	1.72	17	7	18	10	5	11
B1 + IB	0.9	0.0	0.0	0.69	0.00	0.00	10	0	0	6	0	0
NC4 +B=1=3	8.2	3.0	9.4	6.31	12.55	9.49	99	32	101	61	20	63
TBUTENE-2	0.5	0.2	0.6	0.38	0.84	0.61	6	2	6	4	1	4
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.4	0.1	0.6	0.31	0.42	0.61	5	1	6	3	1	4
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.1	0.08	0.00	0.10	1	0	1	1	0	1
ISOPENTANE	7.5	2.1	7.6	5.77	8.79	7.68	90	22	81	56	14	50
PENTENE-1	0.1	0.0	0.1	0.08	0.00	0.10	1	0	1	1	0	1
2MBUT-1	0.2	0.0	0.2	0.15	0.00	0.20	2	0	2	1	0	1
NPENTANE	1.3	0.5	1.1	1.00	2.09	1.31	16	5	14	10	3	9
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 81111
DATE RUN: 09 06 78 AIR CONDITIONER USED
CAR: 1980 MERCURY PROTOTYPE VIN: 8H92F579951 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.6	0.1	0.4	0.46	0.42	0.40	7	1	4	4	1	3
CISPENT-2	0.2	0.0	0.2	0.15	0.00	0.20	2	0	2	1	0	1
2MBUT-2	1.1	0.2	0.9	0.85	0.84	0.91	13	2	9	8	1	6
22MBUTANE	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
CYPENTENE	0.1	0.0	0.1	0.08	0.00	0.10	1	0	1	1	0	1
3MPENTENE	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.1	0.0	0.1	0.08	0.00	0.10	1	0	1	1	0	1
23MBUTANE	1.2	0.2	1.0	0.92	0.84	1.01	14	2	11	9	1	7
2MPENTANE	2.8	0.3	2.1	2.16	1.26	2.12	33	3	22	21	2	14
3MPENTANE	1.5	0.2	1.2	1.15	0.84	1.21	18	2	13	11	1	8
MEXENE-1	0.2	0.0	0.2	0.15	0.00	0.20	2	0	2	1	0	1
N HEXANE	0.9	0.1	0.7	0.69	0.42	0.71	11	1	7	7	1	5
TC6=3,=2	0.8	0.0	0.4	0.62	0.00	0.40	9	0	4	6	0	3
CC6=3	0.1	0.0	0.1	0.08	0.00	0.10	1	0	1	1	0	1
2MPENTENE 2	0.2	0.0	0.1	0.15	0.00	0.10	2	0	1	1	0	1
MCYP43M2C5	1.2	0.1	0.8	0.92	0.42	0.81	14	1	8	9	1	5
24MPENTANE	2.5	0.2	1.7	1.92	0.84	1.72	30	2	18	18	1	11
BENZENE	3.7	0.5	2.2	2.85	2.09	2.22	40	5	21	25	3	13
CYHEXANE	0.3	0.0	0.2	0.23	0.00	0.20	3	0	2	2	0	1
2MC6+23MC5	5.7	0.3	3.7	4.39	1.26	3.74	68	3	39	42	2	24
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.8	0.1	1.2	1.39	0.42	1.21	21	1	13	13	1	8
224MPENTAN	11.1	0.7	7.3	8.55	2.93	7.37	131	7	77	82	5	48
NHEPTANE	1.6	0.1	0.9	1.23	0.42	0.91	19	1	9	12	1	6
MCYHEXANE	0.5	0.0	0.3	0.38	0.00	0.30	6	0	3	4	0	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	2.4	0.1	1.6	1.85	0.42	1.62	28	1	17	18	1	10
234MC5	2.7	0.1	1.7	2.08	0.42	1.72	32	1	18	20	1	11
TOLUENE	9.5	0.5	4.3	7.31	2.09	4.34	104	5	42	64	3	26
23MC6+4MC7	1.3	0.1	0.8	1.00	0.42	0.81	15	1	8	10	1	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 81111
DATE RUN: 09 06 76 AIR CONDITIONER USED
CAR: 1980 MERCURY PROTOTYPE VIN: 8M92F579951 DRIVEN: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
3&4MEXANE	1.5	0.1	0.9	1.15	0.42	0.91	18	1	9	11	1	6
3MHEPTANE	1.4	0.1	0.8	1.08	0.42	0.81	17	1	8	10	1	5
255MC6	1.2	0.1	0.8	0.92	0.42	0.81	14	1	8	9	1	5
N OCTANE	0.8	0.0	0.5	0.62	0.00	0.51	9	0	5	6	0	3
223MC6	0.2	0.0	0.2	0.15	0.00	0.20	2	0	2	1	0	1
ETCYHEXANE	0.3	0.0	0.3	0.23	0.00	0.30	3	0	3	2	0	2
ET BENZENE	1.2	0.0	0.6	0.92	0.00	0.61	13	0	6	8	0	4
M&PXYLENE	4.7	0.1	2.2	3.62	0.42	2.22	52	1	22	32	1	13
244MC8	0.6	0.0	0.5	0.46	0.00	0.51	7	0	5	4	0	3
O XYLENE	1.9	0.1	0.9	1.46	0.42	0.91	21	1	9	13	1	5
N NONANE	0.4	0.0	0.3	0.31	0.00	0.30	5	0	3	3	0	2
IPHBENZENE	0.4	0.0	0.3	0.31	0.00	0.30	4	0	3	3	0	2
NPRBENZENE	0.3	0.0	0.2	0.23	0.00	0.20	3	0	2	2	0	1
1M3ETBENZ	1.4	0.0	0.7	1.08	0.00	0.71	15	0	7	10	0	4
135MEBENZ	0.6	0.0	0.3	0.46	0.00	0.30	7	0	3	4	0	2
1M2ETBENZ	0.6	0.0	0.5	0.46	0.00	0.51	7	0	5	4	0	3
124MBENZ	1.5	0.0	0.7	1.15	0.00	0.71	17	0	7	10	0	4
SBUBENZENE	0.2	0.0	0.2	0.15	0.00	0.20	2	0	2	1	0	1
N DECANE	0.1	0.0	0.1	0.08	0.00	0.10	1	0	1	1	0	1
123MBENZ	0.4	0.0	0.2	0.31	0.00	0.20	4	0	2	3	0	1
INDANE	0.1	0.0	0.1	0.08	0.00	0.10	1	0	1	1	0	1
13EUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.1	0.08	0.00	0.10	1	0	1	1	0	1
1M3PRBENZ	0.2	0.0	0.2	0.15	0.00	0.20	2	0	2	1	0	1
UNKNOWNS	5.7	0.0	3.3	4.39	0.00	3.33	63	0	33	39	0	20

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 81112
DATE RUN: 09 13 78 AIR CONDITIONER USED
CAR: 1980 MERCURY PROTOTYPE VIN: 8M92F579951 DRIVER: WARD FUEL: SUNOCO

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	156.2	21.0	65.8
GC PPMC	148.3	18.6	68.8

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	18.4	7.8	13.7	12.41	41.94	19.91	240	90	149	149	56	93
SATURATES	76.6	8.6	30.9	51.65	46.24	44.91	895	88	302	556	55	188
OLEFINS	15.5	1.5	7.2	10.45	8.06	10.47	177	15	69	110	9	43
ACETYLENE	2.4	0.0	0.0	1.62	0.00	0.00	25	0	0	16	0	0
NAPTHENES	2.8	0.1	0.7	1.89	0.54	1.02	32	1	7	20	1	4
AROMATICS	28.7	0.6	14.4	19.35	3.23	20.93	307	6	129	191	4	80
BENZENE	4.7	0.3	2.1	3.17	1.61	3.05	50	3	19	31	2	12
TOLUENE	10.8	0.3	4.2	7.28	1.61	6.10	116	3	38	72	2	23
C8+AROM	13.2	0.0	8.1	8.90	0.00	11.77	144	0	74	89	0	46
UNKNOWN	3.9	0.0	1.9	0.00	0.00	0.00	43	0	17	26	0	11
INDIVIDUAL COMPONENTS												
METHANE	18.4	7.8	13.7	12.41	41.94	19.91	240	90	149	149	56	93
ETHYLENE	5.7	1.0	3.2	3.84	5.38	4.65	65	10	31	40	6	19
ETHANE	2.3	0.0	2.0	1.55	0.00	2.91	28	0	28	17	0	13
ACETYLENE	2.4	0.0	0.0	1.62	0.00	0.00	25	0	0	16	0	0
C3 + C3=	2.6	0.0	1.0	1.75	0.00	1.45	30	0	10	18	0	6
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.3	0.6	1.2	0.88	3.23	1.74	15	6	12	10	4	7
B1 + IB	1.2	0.0	0.0	0.81	0.00	0.00	14	0	0	9	0	0
NC4 +B=1=3	9.2	3.8	7.0	6.20	16.13	10.17	109	31	69	68	19	43
TBUTENE-2	0.6	0.1	0.5	0.40	0.54	0.73	7	1	5	4	1	3
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.5	0.1	0.4	0.34	0.54	0.58	6	1	4	4	1	2
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.1	0.07	0.00	0.15	1	0	1	1	0	1
ISOPENTANE	9.1	2.2	5.1	6.14	11.83	7.41	107	23	50	66	14	31
PENTENE-1	0.2	0.0	0.1	0.13	0.00	0.15	2	0	1	1	0	1
2MBUT-1	0.3	0.0	0.2	0.20	0.00	0.29	3	0	2	2	0	1
NPENTANE	1.5	0.4	0.8	1.01	2.15	1.16	18	4	8	11	3	5
2MB=1=3	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 81112
DATE RUN: 09 13 78 AIR CONDITIONER USED
CAR: 1980 MERCURY PROTOTYPE VIN: 8M92F579951 DRIVER: WARD FUEL: SUNNER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.7	0.1	0.3	0.47	0.54	0.44	8	1	3	5	1	2
C1SPENT-2	0.3	0.0	0.1	0.20	0.00	0.15	3	0	1	2	0	1
2MBUT-2	1.4	0.2	0.7	0.94	1.08	1.02	16	2	7	10	1	4
22MBUTANE	0.4	0.0	0.1	0.27	0.00	0.15	5	0	1	3	0	1
CYPENTENE	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.1	0.0	0.1	0.07	0.00	0.15	1	0	1	1	0	1
CYPENTANE	0.1	0.0	0.1	0.07	0.00	0.15	1	0	1	1	0	1
23MBUTANE	1.8	0.2	0.6	1.21	1.08	0.87	21	2	6	13	1	4
2MPENTANE	3.5	0.4	1.2	2.36	2.15	1.74	41	4	12	25	3	7
3MPENTANE	2.0	0.2	0.6	1.35	1.08	0.87	23	2	6	15	1	4
HEXENE-1	0.3	0.0	0.1	0.20	0.00	0.15	3	0	1	2	0	1
N HEXANE	1.3	0.1	0.3	0.88	0.54	0.44	15	1	3	9	1	2
TC6=3=2	0.9	0.0	0.3	0.61	0.00	0.44	10	0	3	6	0	2
CC6=3	0.2	0.0	0.0	0.13	0.00	0.00	2	0	0	1	0	0
2MPENTENE2	0.2	0.0	0.1	0.13	0.00	0.15	2	0	1	1	0	1
MCYP43M2C5	1.5	0.1	0.4	1.01	0.54	0.58	17	1	4	11	1	2
24MPENTANE	3.2	0.1	0.9	2.16	0.54	1.31	37	1	9	23	1	5
BENZENE	4.7	0.3	2.1	3.17	1.61	3.05	50	3	19	31	2	12
CYHEXANE	0.3	0.0	0.0	0.20	0.00	0.00	3	0	0	2	0	0
2MC6+23MC5	7.2	0.3	1.9	4.86	1.61	2.76	84	3	18	52	2	11
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.4	0.1	0.6	1.62	0.54	0.87	28	1	6	17	1	4
224MPENTAN	14.1	0.7	3.9	9.51	3.76	5.67	164	7	38	102	4	24
MHEPTANE	2.0	0.0	0.5	1.35	0.00	0.73	23	0	5	14	0	3
MCYHEXANE	0.5	0.0	0.1	0.34	0.00	0.15	6	0	1	4	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	2.9	0.1	0.8	1.96	0.54	1.16	34	1	8	21	1	5
234MC5	3.3	0.1	0.8	2.23	0.54	1.16	38	1	8	24	1	5
TOLUENE	10.8	0.3	4.2	7.28	1.61	6.10	116	3	38	72	2	23
23MC6+4MC7	1.5	0.1	0.5	1.01	0.54	0.73	17	1	5	11	1	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 81112
DATE RUN: 09 13 78 AIR CONDITIONER USED
CAR: 1980 MERCURY PROTOTYPE VIN: 8M92F579951 DRIVER: WAHD FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
34MHEXANE		1.9	0.0	0.5		1.28	0.00	0.73		22	0	5		14	0	3
3MHEPTANE		1.7	0.0	0.4		1.15	0.00	0.58		20	0	4		12	0	2
25DMC6		1.5	0.0	0.4		1.01	0.00	0.58		17	0	4		11	0	2
N OCTANE		1.0	0.0	0.3		0.67	0.00	0.44		12	0	3		7	0	2
223MC6		0.2	0.0	0.0		0.13	0.00	0.00		2	0	0		1	0	0
ETCYHEXANE		0.4	0.0	0.1		0.27	0.00	0.15		5	0	1		3	0	1
ET BENZENE		1.4	0.0	0.7		0.94	0.00	1.02		15	0	6		9	0	4
M+PXYLENE		5.0	0.0	2.7		3.37	0.00	3.92		54	0	24		34	0	15
244MC8		0.8	0.0	0.3		0.54	0.00	0.44		9	0	3		6	0	2
O XYLENE		2.0	0.0	1.0		1.35	0.00	1.45		22	0	9		13	0	6
N NONANE		0.4	0.0	0.2		0.27	0.00	0.29		5	0	2		3	0	1
IPRBENZENE		0.6	0.0	0.1		0.40	0.00	0.15		7	0	1		4	0	1
NPRBENZENE		0.3	0.0	0.2		0.20	0.00	0.29		3	0	2		2	0	1
1M3ETBENZ		1.4	0.0	0.9		0.94	0.00	1.31		15	0	8		9	0	5
135TMEBENZ		0.5	0.0	0.4		0.34	0.00	0.58		5	0	4		3	0	2
1M2ETBENZ		0.1	0.0	0.2		0.07	0.00	0.29		1	0	2		1	0	1
124MBENZ		1.2	0.0	1.1		0.81	0.00	1.60		13	0	10		8	0	6
SBUBENZENE		0.2	0.0	0.1		0.13	0.00	0.15		2	0	1		1	0	1
N DECANE		0.1	0.0	0.0		0.07	0.00	0.00		1	0	0		1	0	0
123MBENZ		0.3	0.0	0.3		0.20	0.00	0.44		3	0	3		2	0	2
INDANE		0.0	0.0	0.1		0.00	0.00	0.15		0	0	1		0	0	1
13EBENZENE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
NBUBENZENE		0.1	0.0	0.1		0.07	0.00	0.15		1	0	1		1	0	1
1M3PHBENZ		0.1	0.0	0.2		0.07	0.00	0.29		1	0	2		1	0	1
UNKNOWNS		3.9	0.0	1.9		2.63	0.00	2.76		43	0	17		26	0	11

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90201
DATE RUN: 09 26 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8H196638 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 20

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	420.4	16.3	53.8
GC PPMC	374.0	14.2	48.2

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	42.8	4.7	7.9	11.44	33.10	16.39	631	90	110	392	56	68
SATURATES	111.8	5.7	22.5	29.89	40.14	46.68	1475	98	280	917	61	174
OLEFINS	84.8	0.8	7.2	22.67	5.63	14.94	1093	13	88	679	8	54
ACETYLENE	17.0	0.0	0.0	4.55	0.00	0.00	203	0	0	126	0	0
NAPTHENES	5.5	0.1	0.9	1.47	0.70	1.87	71	2	11	44	1	7
AROMATICS	79.6	0.6	7.5	21.28	4.23	15.56	963	9	86	599	6	53
BENZENE	11.5	0.1	1.5	3.07	0.70	3.11	138	2	17	85	1	11
TOLUENE	15.8	0.1	2.0	4.22	0.70	4.15	191	2	23	119	1	14
C8+AROM	52.3	0.4	4.0	13.98	2.82	8.30	643	6	46	400	4	29
UNKNOWN	32.5	2.3	2.2	0.00	0.00	0.00	401	37	26	249	23	16
INDIVIDUAL COMPONENTS												
METHANE	42.8	4.7	7.9	11.44	33.10	16.39	631	90	110	392	56	68
ETHYLENE	43.5	0.1	3.3	11.63	0.70	6.85	561	2	40	348	1	25
ETHANE	7.1	0.7	1.6	1.90	4.93	3.32	98	13	21	61	8	13
ACETYLENE	17.0	0.0	0.0	4.55	0.00	0.00	203	0	0	126	0	0
C3 + C3=	14.0	0.0	1.4	3.74	0.00	2.90	180	0	17	112	0	11
C=C=C	0.3	0.0	0.0	0.08	0.00	0.00	4	0	0	2	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.7	0.3	0.7	0.45	2.11	1.45	23	5	9	14	3	5
B1 + IB	7.4	0.0	0.4	1.98	0.00	0.83	95	0	5	59	0	3
NC4 +B=1=3	8.8	1.2	3.3	2.35	8.45	6.85	117	21	42	73	13	26
TBUTENE-2	2.9	0.0	0.3	0.78	0.00	0.62	37	0	4	23	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	4.5	0.0	0.3	1.20	0.00	0.62	58	0	4	36	0	2
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.4	0.0	0.0	0.11	0.00	0.00	5	0	0	3	0	0
ISOPENTANE	10.2	1.1	3.4	2.73	7.75	7.05	135	19	43	84	12	26
PENTENE-1	0.5	0.0	0.0	0.13	0.00	0.00	6	0	0	4	0	0
2MBUT-1	1.0	0.0	0.1	0.27	0.00	0.21	13	0	1	8	0	1
NPENTANE	2.2	0.2	0.6	0.59	1.41	1.24	29	3	8	18	2	5
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90201
DATE RUN: 09 26 7a
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47ABH196638 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	1.6	0.0	0.1	0.43	0.00	0.21	21	0	1	13	0	1
CISPENT-2	0.8	0.0	0.1	0.21	0.00	0.21	10	0	1	6	0	1
2MBUT-2	2.7	0.7	1.0	0.72	4.93	2.07	35	12	12	22	7	8
22MBUTANE	0.3	0.0	0.9	0.08	0.00	1.87	4	0	11	2	0	7
CYPENTENE	0.6	0.0	0.1	0.16	0.00	0.21	8	0	1	5	0	1
3MPENTENE	0.3	0.0	0.0	0.08	0.00	0.00	4	0	0	2	0	0
CYPENTANE	0.3	0.0	0.1	0.08	0.00	0.21	4	0	1	2	0	1
23MBUTANE	2.0	0.2	0.6	0.53	1.41	1.24	26	3	7	16	2	5
2MPENTANE	6.8	0.4	1.0	1.82	2.82	2.07	90	7	12	56	4	8
3MPENTANE	3.2	0.1	0.6	0.86	0.70	1.24	42	2	7	26	1	5
HEXENE-1	1.1	0.0	0.0	0.29	0.00	0.00	14	0	0	9	0	0
N HEXANE	1.5	0.0	0.2	0.40	0.00	0.41	20	0	2	12	0	2
TC6=3,=2	1.7	0.0	0.1	0.45	0.00	0.21	22	0	1	14	0	1
CC6=3	0.6	0.0	0.0	0.16	0.00	0.00	8	0	0	5	0	0
2MPENTENE2	0.9	0.0	0.0	0.24	0.00	0.00	12	0	0	7	0	0
MCYP43M2C5	2.6	0.1	0.4	0.70	0.70	0.83	34	2	5	21	1	3
24MPENTANE	4.4	0.1	0.7	1.18	0.70	1.45	58	2	9	36	1	5
BENZENE	11.5	0.1	1.5	3.07	0.70	3.11	138	2	17	85	1	11
CYHEXANE	0.8	0.0	0.1	0.21	0.00	0.21	10	0	1	6	0	1
2MC6+23MC5	12.5	0.3	1.9	3.34	2.11	3.94	164	5	24	102	3	15
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.5	0.1	0.4	0.67	0.70	0.83	33	2	5	20	1	3
224MPENTAN	19.9	0.7	3.3	5.32	4.93	6.85	261	12	41	162	7	25
NHEPTANE	2.3	0.0	0.2	0.61	0.00	0.41	30	0	2	19	0	2
MCYHEXANE	1.5	0.0	0.2	0.40	0.00	0.41	19	0	2	12	0	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+23M	4.0	0.1	0.6	1.07	0.70	1.24	52	2	7	33	1	5
234MC5	6.4	0.1	0.8	1.71	0.70	1.66	84	2	10	52	1	6
TULUENE	15.8	0.1	2.0	4.22	0.70	4.15	191	2	23	119	1	14
23MC6+4MC7	2.7	0.1	0.3	0.72	0.70	0.62	35	2	4	22	1	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90201
DATE RUN: 09 26 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8H196638 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.3	0.0	0.3	0.61	0.00	0.62	30	0	4	19	0	2
3MHEPTANE	2.4	0.0	0.3	0.64	0.00	0.62	31	0	4	20	0	2
25DMC6	2.5	0.0	0.3	0.67	0.00	0.62	33	0	4	20	0	2
N OCTANE	1.3	0.0	0.1	0.35	0.00	0.21	17	0	1	11	0	1
223MC6	0.4	0.0	0.0	0.11	0.00	0.00	5	0	0	3	0	0
ETCYHEXANE	0.3	0.0	0.1	0.08	0.00	0.21	4	0	1	2	0	1
ET BENZENE	3.6	0.0	0.3	0.96	0.00	0.62	44	0	3	27	0	2
M+PXYLENE	13.4	0.1	1.2	3.58	0.70	2.49	163	2	14	102	1	9
2+4MC8	1.9	0.0	0.2	0.51	0.00	0.41	25	0	2	15	0	2
O XYLENE	5.7	0.0	0.5	1.52	0.00	1.04	69	0	6	43	0	4
N NONANE	2.1	0.0	0.2	0.56	0.00	0.41	27	0	2	17	0	2
IPRBENZENE	1.5	0.0	0.1	0.40	0.00	0.21	18	0	1	11	0	1
NPRBENZENE	1.0	0.0	0.1	0.27	0.00	0.21	12	0	1	8	0	1
1M3ETBENZ	6.3	0.1	0.4	1.68	0.70	0.83	77	2	5	48	1	3
135MEBENZ	2.5	0.0	0.2	0.67	0.00	0.41	31	0	2	19	0	1
1M2ETBENZ	2.8	0.1	0.3	0.75	0.70	0.62	34	2	3	21	1	2
124MBENZ	7.4	0.1	0.4	1.98	0.70	0.83	91	2	5	56	1	3
SBUBENZENE	0.9	0.0	0.1	0.24	0.00	0.21	11	0	1	7	0	1
N DECANE	0.4	0.0	0.0	0.11	0.00	0.00	5	0	0	3	0	0
123MBENZ	2.0	0.0	0.1	0.53	0.00	0.21	25	0	1	15	0	1
INDANE	0.8	0.0	0.1	0.21	0.00	0.21	10	0	1	6	0	1
13DEBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	1.8	0.0	0.1	0.48	0.00	0.21	22	0	1	14	0	1
1M3PRBENZ	2.6	0.0	0.1	0.70	0.00	0.21	32	0	1	20	0	1
UNKNOWNS	32.5	2.3	2.2	8.69	16.20	4.56	401	37	26	249	23	16

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NU.: 90202
DATE RUN: 09 28 78
CAR: 1980 BUICK RLGAL PROTOTYP VIN: 4J47A8M196638 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 20

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	378.6	14.1	81.4
GC PPMC	364.6	13.7	75.0

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	45.1	4.1	8.7	12.37	29.93	11.60	594	54	116	369	33	72
SATURATES	102.0	6.1	41.1	27.98	44.53	54.80	1203	72	493	747	45	306
OLEFINS	93.1	0.4	9.3	25.54	2.92	12.40	1072	5	109	666	3	68
ACETYLENE	15.3	0.0	0.0	4.20	0.00	0.00	164	0	0	102	0	0
NAPTHENES	5.4	0.1	1.8	1.48	0.73	2.40	62	1	21	39	1	13
AROMATICS	74.6	0.9	9.9	20.46	6.57	13.20	807	10	109	501	6	68
BENZENE	11.5	0.2	1.6	3.15	1.46	2.13	123	2	17	76	1	11
TOLUENE	14.3	0.1	2.6	3.92	0.73	3.47	155	1	29	96	1	18
C8+AROM	48.8	0.6	5.7	13.38	4.38	7.60	536	7	64	333	4	40
UNKNOWN	29.1	2.1	4.2	0.00	0.00	0.00	321	23	47	199	14	29
INDIVIDUAL COMPONENTS												
METHANE	45.1	4.1	8.7	12.37	29.93	11.60	594	54	116	369	33	72
ETHYLENE	43.6	0.1	4.5	11.96	0.73	6.00	502	1	53	312	1	33
ETHANE	5.4	0.7	1.7	1.48	5.11	2.27	67	9	21	41	5	13
ACETYLENE	15.3	0.0	0.0	4.20	0.00	0.00	164	0	0	102	0	0
C3 + C3=	15.3	0.0	1.7	4.20	0.00	2.27	176	0	20	110	0	12
C=C=C	0.5	0.0	0.0	0.14	0.00	0.00	5	0	0	3	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.9	0.3	1.3	0.52	2.19	1.73	23	4	16	14	2	10
B1 + IB	9.0	0.0	0.0	2.47	0.00	0.00	104	0	0	64	0	0
NC4 +B=1=3	9.4	1.2	6.6	2.58	8.76	8.80	112	14	80	70	9	50
TBUTENE-2	3.3	0.1	0.5	0.91	0.73	0.67	38	1	6	24	1	4
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	6.2	0.1	0.5	1.70	0.73	0.67	71	1	6	44	1	4
B=1=2	0.1	0.0	0.0	0.03	0.00	0.00	1	0	0	1	0	0
3MB1	0.5	0.0	0.1	0.14	0.00	0.13	6	0	1	4	0	1
ISOPENTANE	9.8	1.2	6.4	2.69	8.76	8.53	116	14	77	72	9	48
PENTENE-1	0.6	0.0	0.1	0.16	0.00	0.13	7	0	1	4	0	1
2MBUT-1	1.4	0.0	0.2	0.38	0.00	0.27	16	0	2	10	0	1
NPENTANE	2.1	0.2	1.2	0.58	1.46	1.60	25	2	14	15	1	9
2MB=1=3	0.4	0.0	0.0	0.11	0.00	0.00	4	0	0	3	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90202
DATE RUN: 09 28 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8H196638 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.8	0.0	0.3	0.49	0.00	0.40	21	0	4	13	0	2
CISPENT-2	0.9	0.0	0.1	0.25	0.00	0.13	10	0	1	6	0	1
2MBUT-2	4.2	0.1	0.6	1.15	0.73	0.80	48	1	7	30	1	4
22MBUTANE	0.6	0.6	0.4	0.16	4.38	0.53	7	7	5	4	4	3
CYPENTENE	0.7	0.0	0.1	0.19	0.00	0.13	8	0	1	5	0	1
3MPENTENE	0.5	0.0	0.0	0.14	0.00	0.00	6	0	0	4	0	0
CYPENTANE	0.4	0.0	0.1	0.11	0.00	0.13	5	0	1	3	0	1
23MBUTANE	2.4	0.2	0.9	0.66	1.46	1.20	28	2	11	18	1	7
2MPENTANE	5.2	0.3	2.0	1.43	2.19	2.67	61	4	24	38	2	15
3MPENTANE	2.9	0.1	1.2	0.80	0.73	1.60	34	1	14	21	1	9
HEXENE-1	0.9	0.0	0.1	0.25	0.00	0.13	10	0	1	6	0	1
N HEXANE	1.3	0.0	0.4	0.36	0.00	0.53	15	0	5	10	0	3
TC6=3,=2	1.8	0.0	0.4	0.49	0.00	0.53	21	0	5	13	0	3
CC6=3	0.5	0.0	0.1	0.14	0.00	0.13	6	0	1	4	0	1
2MPENTENE2	0.9	0.0	0.0	0.25	0.00	0.00	10	0	0	6	0	0
MCYP43M2C5	2.4	0.1	0.9	0.66	0.73	1.20	28	1	11	17	1	7
24MPENTANE	4.0	0.1	1.4	1.10	0.73	1.87	47	1	17	29	1	10
BENZENE	11.5	0.2	1.6	3.15	1.46	2.13	123	2	17	76	1	11
CYHEXANE	0.7	0.0	0.2	0.19	0.00	0.27	8	0	2	5	0	1
2MC6+23MC5	11.3	0.3	3.9	3.10	2.19	5.20	133	4	47	83	2	29
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.1	0.0	0.7	0.58	0.00	0.93	25	0	8	15	0	5
224MPENTAN	17.9	0.6	6.5	4.91	4.38	8.67	210	7	77	130	4	48
NHEPTANE	2.2	0.1	0.4	0.60	0.73	0.53	26	1	5	16	1	3
MCYHEXANE	1.3	0.0	0.4	0.36	0.00	0.53	15	0	5	9	0	3
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	3.5	0.0	1.1	0.96	0.00	1.47	41	0	13	25	0	8
234MC5	6.1	0.1	1.6	1.67	0.73	2.13	72	1	19	44	1	12
TOLUENE	14.3	0.1	2.6	3.92	0.73	3.47	155	1	29	96	1	18
23MC6+4MC7	2.5	0.1	0.6	0.69	0.73	0.80	29	1	7	18	1	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90202
DATE RUN: 09 28 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8H196638 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.0	0.0	0.5	0.55	0.00	0.67	23	0	6	15	0	4
3MHEPTANE	2.1	0.0	0.5	0.58	0.00	0.67	25	0	6	15	0	4
25SMC6	2.2	0.0	0.6	0.60	0.00	0.80	26	0	7	16	0	4
N OCTANE	1.0	0.0	0.2	0.27	0.00	0.27	12	0	2	7	0	1
223MC6	0.3	0.0	0.1	0.08	0.00	0.13	4	0	1	2	0	1
ETCYHEXANE	0.6	0.0	0.2	0.16	0.00	0.27	7	0	2	4	0	1
ET BENZENE	3.2	0.0	0.4	0.88	0.00	0.53	35	0	4	22	0	3
M+PXYLENE	12.3	0.1	1.5	3.37	0.73	2.00	134	1	17	83	1	10
24+MC8	1.7	0.0	0.4	0.47	0.00	0.53	20	0	5	12	0	3
O XYLENE	5.2	0.0	0.7	1.43	0.00	0.93	57	0	8	35	0	5
N NONANE	1.8	0.0	0.4	0.49	0.00	0.53	21	0	5	13	0	3
IPRBENZENE	1.4	0.0	0.3	0.38	0.00	0.40	15	0	3	10	0	2
NPRBENZENE	0.8	0.0	0.1	0.22	0.00	0.13	9	0	1	5	0	1
1M3ETBENZ	5.9	0.1	0.6	1.62	0.73	0.80	65	1	7	40	1	4
135MEBENZ	2.4	0.0	0.3	0.66	0.00	0.40	26	0	3	16	0	2
1M2ETBENZ	2.5	0.1	0.6	0.69	0.73	0.80	27	1	7	17	1	4
124MBENZ	7.4	0.2	0.7	2.03	1.46	0.93	81	2	8	50	1	5
SBUBENZENE	0.8	0.0	0.1	0.22	0.00	0.13	9	0	1	5	0	1
N DECANE	0.3	0.0	0.1	0.08	0.00	0.13	4	0	1	2	0	1
123MBENZ	1.9	0.1	0.2	0.52	0.73	0.27	21	1	2	13	1	1
INDANE	0.5	0.0	0.0	0.14	0.00	0.00	5	0	0	3	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	1.9	0.0	0.1	0.52	0.00	0.13	21	0	1	13	0	1
1M3PRBENZ	2.6	0.0	0.1	0.71	0.00	0.13	29	0	1	18	0	1
UNKNOWNS	29.1	2.1	4.2	7.98	15.33	5.60	321	23	47	199	14	29

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90401
DATE RUN: 09 25 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8M196638 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 40

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	343.0	19.0	53.5
GC PPMC	233.7	18.4	47.6

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	23.1	5.1	7.3	9.88	27.72	15.34	422	8	77	262	5	48
SATURATES	79.7	5.5	23.4	34.10	29.89	49.16	1304	7	222	810	5	138
OLEFINS	48.2	2.4	6.8	20.62	13.04	14.29	770	3	63	479	2	39
ACETYLENE	11.4	0.0	0.0	4.88	0.00	0.00	169	0	0	105	0	0
NAPTHENES	4.7	0.1	1.1	2.01	0.54	2.31	75	0	10	47	0	6
AROMATICS	46.3	2.6	5.2	19.81	14.13	10.92	695	3	45	432	2	28
BENZENE	6.9	0.2	1.2	2.95	1.09	2.52	102	0	10	64	0	6
TOLUENE	10.3	2.2	1.7	4.41	11.96	3.57	155	3	15	96	2	9
C8+AROM	29.1	0.2	2.3	12.45	1.09	4.83	444	0	20	276	0	13
UNKNOWN	20.3	2.7	3.8	0.00	0.00	0.00	310	3	34	193	2	21
INDIVIDUAL COMPONENTS												
METHANE	23.1	5.1	7.3	9.88	27.72	15.34	422	8	77	262	5	48
ETHYLENE	21.6	0.1	3.0	9.24	0.54	6.30	345	0	28	214	0	17
ETHANE	2.8	0.7	1.5	1.20	3.80	3.15	48	1	15	30	1	9
ACETYLENE	11.4	0.0	0.0	4.88	0.00	0.00	169	0	0	105	0	0
C3 + C3=	7.1	0.1	1.3	3.04	0.54	2.73	113	0	12	71	0	7
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.1	0.3	0.9	0.47	1.63	1.89	18	0	9	11	0	5
B1 + I8	3.8	1.5	0.4	1.63	8.15	0.84	61	2	4	38	1	2
NC4 +B=1=3	6.5	0.0	3.8	2.78	0.00	7.98	108	0	36	67	0	23
TBUTENE-2	1.8	0.0	0.3	0.77	0.00	0.63	29	0	3	18	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	3.0	0.0	0.2	1.28	0.00	0.42	48	0	2	30	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.4	0.0	0.0	0.17	0.00	0.00	6	0	0	4	0	0
ISOPENTANE	7.5	1.3	3.7	3.21	7.07	7.77	123	2	35	77	1	22
PENTENE-1	0.3	0.0	0.0	0.13	0.00	0.00	5	0	0	3	0	0
2MBUT-1	0.6	0.0	0.1	0.26	0.00	0.21	10	0	1	6	0	1
NPENTANE	1.8	0.2	0.7	0.77	1.09	1.47	30	0	7	18	0	4
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90401
DATE RUN: 09 25 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8H196638 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.2	0.0	0.2	0.51	0.00	0.42	19	0	2	12	0	1
CISPENT-2	0.6	0.0	0.1	0.26	0.00	0.21	10	0	1	6	0	1
2MBUT-2	2.1	0.7	0.2	0.90	3.80	0.42	34	1	2	21	1	1
22MBUTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTENE	0.7	0.0	0.3	0.30	0.00	0.63	11	0	3	7	0	2
3MPENTENE	0.3	0.0	0.0	0.13	0.00	0.00	5	0	0	3	0	0
CYPENTANE	0.3	0.0	0.3	0.13	0.00	0.63	5	0	3	3	0	2
23MBUTANE	1.9	0.4	0.7	0.81	2.17	1.47	31	1	7	19	0	4
2MPENTANE	4.0	0.6	1.8	1.71	3.26	3.78	65	1	17	41	0	11
3MPENTANE	2.9	0.1	0.8	1.24	0.54	1.68	47	0	8	29	0	5
HEXENE-1	1.2	0.0	0.2	0.51	0.00	0.42	19	0	2	12	0	1
N HEXANE	1.3	0.1	0.3	0.56	0.54	0.63	21	0	3	13	0	2
TC6=3,=2	2.2	0.0	0.3	0.94	0.00	0.63	35	0	3	22	0	2
CC6=3	0.6	0.0	0.1	0.26	0.00	0.21	10	0	1	6	0	1
2MPENTENE2	0.7	0.0	0.1	0.30	0.00	0.21	11	0	1	7	0	1
MCYP4,2M2C5	2.2	0.1	0.5	0.94	0.54	1.05	35	0	5	22	0	3
24MPENTANE	3.7	0.2	0.8	1.58	1.09	1.68	60	0	8	37	0	5
BENZENE	6.9	0.2	1.2	2.95	1.09	2.52	102	0	10	64	0	6
CYHEXANE	0.7	0.0	0.1	0.30	0.00	0.21	11	0	1	7	0	1
2MC6+23MC5	9.5	0.3	1.8	4.07	1.63	3.78	155	0	17	96	0	11
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.9	0.1	0.3	0.81	0.54	0.63	31	0	3	19	0	2
224MPENTAN	15.1	0.7	3.2	6.46	3.80	6.72	246	1	30	153	1	19
NHEPTANE	1.7	0.0	0.2	0.73	0.00	0.42	28	0	2	17	0	1
MCYHEXANE	1.1	0.0	0.2	0.47	0.00	0.42	18	0	2	11	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	2.9	0.1	0.5	1.24	0.54	1.05	47	0	5	29	0	3
234MC5	4.3	0.1	0.7	1.84	0.54	1.47	70	0	7	43	0	4
TOLUENE	10.3	2.2	1.7	4.41	11.96	3.57	155	3	15	96	2	9
23MC6+4MC7	1.9	0.0	0.3	0.81	0.00	0.63	31	0	3	19	0	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90401
DATE RUN: 09 25 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47ARH196638 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	1.6	0.2	0.3	0.68	1.09	0.63	26	0	3	16	0	2
3MHEPTANE	1.7	0.1	0.3	0.73	0.54	0.63	28	0	3	17	0	2
25DMC6	1.7	0.0	0.3	0.73	0.00	0.63	28	0	3	17	0	2
N OCTANE	0.8	0.0	0.1	0.34	0.00	0.21	13	0	1	8	0	1
223MC6	0.2	0.0	0.0	0.09	0.00	0.00	3	0	0	2	0	0
ETCYHEXANE	0.4	0.0	0.0	0.17	0.00	0.00	6	0	0	4	0	0
ET BENZENE	2.1	0.0	0.2	0.90	0.00	0.42	32	0	2	20	0	1
M+PXYLENE	8.2	0.1	0.8	3.51	0.54	1.68	124	0	7	77	0	4
244MC8	1.3	0.0	0.2	0.56	0.00	0.42	21	0	2	13	0	1
O XYLENE	3.5	0.1	0.3	1.50	0.54	0.63	53	0	3	33	0	2
N NONANE	1.4	0.0	0.2	0.60	0.00	0.42	23	0	2	14	0	1
IPRBENZENE	1.1	0.0	0.1	0.47	0.00	0.21	17	0	1	10	0	1
NPRBENZENE	0.6	0.0	0.0	0.26	0.00	0.00	9	0	0	6	0	0
1M3ETBENZ	3.7	0.0	0.3	1.58	0.00	0.63	56	0	3	35	0	2
135MEBENZ	1.4	0.0	0.1	0.60	0.00	0.21	21	0	1	13	0	1
1M2ETBENZ	1.8	0.0	0.1	0.77	0.00	0.21	27	0	1	17	0	1
124MBENZ	4.0	0.0	0.3	1.71	0.00	0.63	61	0	3	38	0	2
SBUBENZENE	0.5	0.0	0.1	0.21	0.00	0.21	8	0	1	5	0	1
N DECANE	0.2	0.0	0.0	0.09	0.00	0.00	3	0	0	2	0	0
123MBENZ	1.0	0.0	0.0	0.43	0.00	0.00	15	0	0	9	0	0
INDANE	0.4	0.0	0.0	0.17	0.00	0.00	6	0	0	4	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.3	0.0	0.0	0.13	0.00	0.00	5	0	0	3	0	0
1M3PRBENZ	0.5	0.0	0.0	0.21	0.00	0.00	8	0	0	5	0	0
UNKNOWNS	20.3	2.7	3.8	8.69	14.67	7.98	318	3	34	193	2	21

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90601
DATE RUN: 10 13 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8M196638 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FLDERAL TEST PROCEDURE TEST TEMPERATURE = 68

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	193.1	9.2	32.7
GC PPMC	169.3	8.4	28.9

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	27.4	4.5	6.2	16.18	53.57	21.45	405	60	83	251	38	52
SATURATES	84.7	3.2	14.1	50.03	38.10	48.79	1120	38	169	696	24	105
OLEFINS	15.0	0.0	2.8	8.86	0.00	9.69	194	0	33	120	0	20
ACETYLENE	9.1	0.0	0.0	5.38	0.00	0.00	109	0	0	68	0	0
NAPTHENES	3.2	0.1	0.4	1.89	1.19	1.38	41	1	5	26	1	3
AROMATICS	24.1	0.2	5.2	14.24	2.38	17.99	292	2	57	182	1	36
BENZENE	4.9	0.1	1.4	2.89	1.19	4.84	59	1	15	36	1	9
TOLUENE	9.7	0.1	1.8	5.73	1.19	6.23	118	1	20	73	1	12
C8+AROM	9.5	0.0	2.0	5.61	0.00	6.92	117	0	22	73	0	14
UNKNOWN	5.8	0.4	0.2	0.00	0.00	0.00	72	4	2	45	3	1
INDIVIDUAL COMPONENTS												
METHANE	27.4	4.5	6.2	16.18	53.57	21.45	405	60	83	251	38	52
ETHYLENE	5.2	0.0	1.9	3.07	0.00	6.57	67	0	22	42	0	14
ETHANE	2.7	0.6	1.2	1.59	7.14	4.15	37	8	15	23	5	9
ACETYLENE	9.1	0.0	0.0	5.38	0.00	0.00	109	0	0	68	0	0
C3 + C3=	2.0	0.0	0.6	1.18	0.00	2.08	26	0	7	16	0	4
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	2.0	0.2	0.3	1.18	2.38	1.04	27	2	4	17	2	2
B1 + IB	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NC4 +B=1=3	13.8	0.7	2.3	8.15	8.33	7.96	185	9	28	115	5	17
TBUTENE-2	0.7	0.0	0.1	0.41	0.00	0.35	9	0	1	6	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.5	0.0	0.1	0.30	0.00	0.35	6	0	1	4	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.0	0.12	0.00	0.00	3	0	0	2	0	0
ISOPENTANE	12.8	0.6	1.9	7.56	7.14	6.57	170	7	23	106	5	14
PENTENE-1	0.3	0.0	0.0	0.18	0.00	0.00	4	0	0	2	0	0
2MBUT-1	0.4	0.0	0.0	0.24	0.00	0.00	5	0	0	3	0	0
NPENTANE	2.0	0.1	0.3	1.18	1.19	1.04	27	1	4	17	1	2
2NB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90601
DATE RUN: 10 13 78
CAR: 1980 BUICK RLGAL PROTOTYP VIN: 4J47A8H196638 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.1	0.0	0.0	0.65	0.00	0.00	14	0	0	9	0	0
CISPENT-2	0.5	0.0	0.0	0.30	0.00	0.00	6	0	0	4	0	0
2MBUT-2	2.0	0.0	0.1	1.18	0.00	0.35	26	0	1	16	0	1
22MBUTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTENE	0.2	0.0	0.0	0.12	0.00	0.00	3	0	0	2	0	0
3MPENTENE	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.3	0.0	0.0	0.18	0.00	0.00	4	0	0	2	0	0
23MBUTANE	2.2	0.1	0.2	1.30	1.19	0.69	29	1	2	18	1	1
2MPENTANE	4.2	0.1	0.5	2.48	1.19	1.73	56	1	6	35	1	4
3MPENTANE	2.4	0.1	0.4	1.42	1.19	1.38	32	1	5	20	1	3
HEXENE-1	0.3	0.0	0.0	0.18	0.00	0.00	4	0	0	2	0	0
N HEXANE	1.5	0.0	0.2	0.89	0.00	0.69	20	0	2	12	0	1
TC6=3,=2	0.9	0.0	0.0	0.53	0.00	0.00	12	0	0	7	0	0
CC6=3	0.2	0.0	0.0	0.12	0.00	0.00	3	0	0	2	0	0
2MPENTENE2	0.4	0.0	0.0	0.24	0.00	0.00	5	0	0	3	0	0
MCYP43M2C5	1.8	0.1	0.2	1.06	1.19	0.69	23	1	2	14	1	1
24MPENTANE	3.7	0.2	0.5	2.19	2.38	1.73	49	2	6	30	1	4
BENZENE	4.9	0.1	1.4	2.89	1.19	4.84	59	1	15	36	1	9
CYHEXANE	0.3	0.0	0.0	0.18	0.00	0.00	4	0	0	2	0	0
2MC6+23MC5	7.7	0.0	1.0	4.55	0.00	3.46	101	0	12	63	0	7
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.3	0.0	0.3	1.36	0.00	1.04	30	0	4	19	0	2
224MPENTAN	13.5	0.4	2.3	7.97	4.76	7.96	177	5	27	110	3	17
NHEPTANE	1.9	0.0	0.2	1.12	0.00	0.69	25	0	2	16	0	1
MCYHEXANE	0.5	0.0	0.1	0.30	0.00	0.35	6	0	1	4	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	2.5	0.0	0.4	1.48	0.00	1.38	33	0	5	20	0	3
234MC5	2.7	0.1	0.5	1.59	1.19	1.73	35	1	6	22	1	4
TOLUENE	9.7	0.1	1.8	5.73	1.19	6.23	118	1	20	73	1	12
23MC6+4MC7	1.2	0.0	0.3	0.71	0.00	1.04	16	0	4	10	0	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90601
DATE RUN: 10 13 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8N196638 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	1.4	0.0	0.3	0.83	0.00	1.04	18	0	4	11	0	2
3MHEPTANE	1.2	0.0	0.3	0.71	0.00	1.04	16	0	4	10	0	2
255MC6	1.3	0.0	0.3	0.77	0.00	1.04	17	0	4	11	0	2
N OCTANE	0.7	0.0	0.1	0.41	0.00	0.35	9	0	1	6	0	1
223MC6	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.3	0.0	0.1	0.18	0.00	0.35	4	0	1	2	0	1
ET BENZENE	1.0	0.0	0.3	0.59	0.00	1.04	12	0	3	8	0	2
M+PXYLENE	3.4	0.0	0.7	2.01	0.00	2.42	42	0	8	26	0	5
2+4MC8	0.5	0.0	0.2	0.30	0.00	0.69	7	0	2	4	0	1
O XYLENE	1.3	0.0	0.3	0.77	0.00	1.04	16	0	3	10	0	2
N NONANE	0.3	0.0	0.1	0.18	0.00	0.35	4	0	1	2	0	1
IPRBENZENE	0.3	0.0	0.1	0.18	0.00	0.35	4	0	1	2	0	1
NPRBENZENE	0.2	0.0	0.0	0.12	0.00	0.00	2	0	0	2	0	0
1M3ETBENZ	0.9	0.0	0.2	0.53	0.00	0.69	11	0	2	7	0	1
135MEBENZ	0.3	0.0	0.1	0.18	0.00	0.35	4	0	1	2	0	1
1M2ETBENZ	0.5	0.0	0.2	0.30	0.00	0.69	6	0	2	4	0	1
124MBENZ	0.9	0.0	0.1	0.53	0.00	0.35	11	0	1	7	0	1
SBUBENZENE	0.2	0.0	0.0	0.12	0.00	0.00	2	0	0	2	0	0
N DECANE	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.3	0.0	0.0	0.18	0.00	0.00	4	0	0	2	0	0
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
UNKNOWNS	5.8	0.4	0.2	3.43	4.76	0.69	72	4	2	45	3	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90701
DATE RUN: 10 12 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8H196638 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 70

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	116.8	9.7	34.6
GC PPMC	105.5	9.2	31.9

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	12.0	4.9	7.3	11.37	53.26	22.88	167	60	94	104	38	58
SATURATES	32.0	3.5	14.0	30.33	38.04	43.89	398	39	161	247	24	100
OLEFINS	23.4	0.0	3.7	22.18	0.00	11.60	284	0	42	177	0	26
ACETYLENE	3.0	0.0	0.0	2.84	0.00	0.00	34	0	0	21	0	0
NAPTHENES	1.2	0.0	0.4	1.14	0.00	1.25	15	0	4	9	0	3
AROMATICS	29.3	0.5	5.8	27.77	5.43	18.18	334	5	61	208	3	38
BENZENE	4.4	0.1	1.6	4.17	1.09	5.02	50	1	17	31	1	10
TOLUENE	8.8	0.2	1.8	8.34	2.17	5.64	100	2	19	62	1	12
C8+AROM	16.1	0.2	2.4	15.26	2.17	7.52	187	2	26	116	1	16
UNKNOWN	4.6	0.3	0.7	0.00	0.00	0.00	53	3	8	33	2	5
INDIVIDUAL COMPONENTS												
METHANE	12.0	4.9	7.3	11.37	53.26	22.88	167	60	94	104	38	58
ETHYLENE	11.2	0.0	2.3	10.62	0.00	7.21	136	0	28	85	0	16
ETHANE	2.0	0.6	1.3	1.90	6.52	4.08	26	7	16	16	4	10
ACETYLENE	3.0	0.0	0.0	2.84	0.00	0.00	34	0	0	21	0	0
C3 + C3=	5.4	0.0	0.8	5.12	0.00	2.51	66	0	9	41	0	6
C=C=C	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.3	0.1	0.3	0.28	1.09	0.94	4	1	3	2	1	2
B1 + IB	2.5	0.0	0.0	2.37	0.00	0.00	30	0	0	19	0	0
NC4 +B=1=3	3.4	0.8	2.3	3.22	8.70	7.21	43	9	27	27	6	17
TBUTENE-2	0.8	0.0	0.2	0.76	0.00	0.63	10	0	2	6	0	1
22NPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.9	0.0	0.2	0.85	0.00	0.63	11	0	2	7	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	2.6	0.6	1.7	2.46	6.52	5.33	32	7	20	20	4	12
PENTENE-1	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.2	0.0	0.0	0.19	0.00	0.00	2	0	0	2	0	0
NPENTANE	0.5	0.1	0.3	0.47	1.09	0.94	6	1	3	4	1	2
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90701
DATE RUN: 10 12 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8H196638 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.4	0.0	0.1	0.38	0.00	0.31	5	0	1	3	0	1
CISPENT-2	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.7	0.0	0.1	0.66	0.00	0.31	9	0	1	5	0	1
22MBUTANE	0.1	0.3	0.1	0.09	3.26	0.31	1	3	1	1	2	1
CYPENTENE	0.2	0.0	0.0	0.19	0.00	0.00	2	0	0	1	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	0.5	0.1	0.2	0.47	1.09	0.63	6	1	2	4	1	1
2MPENTANE	1.0	0.2	0.6	0.95	2.17	1.88	12	2	7	8	1	4
3MPENTANE	0.7	0.1	0.3	0.66	1.09	0.94	9	1	3	5	1	2
HEXENE-1	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
N HEXANE	0.4	0.0	0.2	0.38	0.00	0.63	5	0	2	3	0	1
TC6=3,=2	0.4	0.0	0.0	0.38	0.00	0.00	5	0	0	3	0	0
CC6=3	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
MCYP43M2C5	0.6	0.0	0.2	0.57	0.00	0.63	7	0	2	5	0	1
24MPENTANE	1.3	0.1	0.5	1.23	1.09	1.57	16	1	6	10	1	4
BENZENE	4.4	0.1	1.6	4.17	1.09	5.02	50	1	17	31	1	10
CYHEXANE	0.2	0.0	0.0	0.19	0.00	0.00	2	0	0	2	0	0
2MC6+23MC5	2.9	0.1	1.0	2.75	1.09	3.13	36	1	11	22	1	7
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.0	0.0	0.4	0.95	0.00	1.25	12	0	5	8	0	3
224MPENTAN	6.0	0.3	2.3	5.69	3.26	7.21	74	3	26	46	2	16
NHEPTANE	0.9	0.0	0.2	0.85	0.00	0.63	11	0	2	7	0	1
MCYHEXANE	0.2	0.0	0.1	0.19	0.00	0.31	2	0	1	2	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.4	0.0	0.5	1.33	0.00	1.57	17	0	6	11	0	4
234MC5	1.5	0.1	0.5	1.42	1.09	1.57	19	1	6	12	1	4
TOLUENE	8.8	0.2	1.8	8.34	2.17	5.64	100	2	19	62	1	12
23MC6+4MC7	0.9	0.0	0.2	0.85	0.00	0.63	11	0	2	7	0	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90701
DATE RUN: 10 12 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8M196638 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.1	0.0	0.2	1.04	0.00	0.63	14	0	2	8	0	1
3MHEPTANE	1.0	0.0	0.2	0.95	0.00	0.63	12	0	2	8	0	1
25MC6	0.8	0.0	0.2	0.76	0.00	0.63	10	0	2	6	0	1
N OCTANE	0.6	0.0	0.2	0.57	0.00	0.63	7	0	2	5	0	1
223MC6	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.2	0.0	0.1	0.19	0.00	0.31	2	0	1	2	0	1
ET BENZENE	1.6	0.0	0.3	1.52	0.00	0.94	18	0	3	11	0	2
M+PXYLENE	5.5	0.1	0.7	5.21	1.09	2.19	63	1	7	39	1	5
2+4MCB	0.6	0.0	0.2	0.57	0.00	0.63	7	0	2	5	0	1
O XYLENE	2.3	0.1	0.3	2.18	1.09	0.94	26	1	3	16	1	2
N NONANE	0.3	0.0	0.1	0.28	0.00	0.31	4	0	1	2	0	1
IPRBENZENE	0.3	0.0	0.1	0.28	0.00	0.31	3	0	1	2	0	1
NPRBENZENE	0.3	0.0	0.0	0.28	0.00	0.00	3	0	0	2	0	0
1M3ETBENZ	1.8	0.0	0.2	1.71	0.00	0.63	21	0	2	13	0	1
135MEBENZ	0.7	0.0	0.1	0.66	0.00	0.31	8	0	1	5	0	1
1M2ETBENZ	0.5	0.0	0.2	0.47	0.00	0.63	6	0	2	4	0	1
124MBENZ	2.0	0.0	0.2	1.90	0.00	0.63	23	0	2	14	0	1
SBUBENZENE	0.2	0.0	0.1	0.19	0.00	0.31	2	0	1	1	0	1
N DECANE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.5	0.0	0.1	0.47	0.00	0.31	6	0	1	4	0	1
INDANE	0.1	0.0	0.1	0.09	0.00	0.31	1	0	1	1	0	1
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.2	0.0	0.0	0.19	0.00	0.00	2	0	0	1	0	0
UNKNOWNS	4.6	0.3	0.7	4.36	3.26	2.19	53	3	8	33	2	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90702
DATE RUN: 10 16 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8H196638 DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 70

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	109.4	8.5	38.8
GC PPMC	111.9	9.2	38.1

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	10.8	5.0	7.8	9.65	54.35	20.47	133	60	98	83	37	61
SATURATES	38.5	3.8	18.8	34.41	41.30	49.34	425	41	212	264	25	131
OLEFINS	22.8	0.0	4.1	20.38	0.00	10.76	246	0	45	153	0	28
ACETYLENE	2.8	0.0	0.0	2.50	0.00	0.00	28	0	0	17	0	0
NAPTHENES	1.6	0.0	0.5	1.43	0.00	1.31	17	0	5	11	0	3
AROMATICS	29.8	0.3	5.7	26.63	3.26	14.96	302	3	59	188	2	37
BENZENE	4.8	0.1	1.9	4.29	1.09	4.99	48	1	19	30	1	12
TOLUENE	9.4	0.2	2.0	8.40	2.17	5.25	95	2	21	59	1	13
C8+AROM	15.6	0.0	1.8	13.94	0.00	4.72	161	0	19	100	0	12
UNKNOWN	5.6	0.1	1.2	0.00	0.00	0.00	58	1	13	36	1	8
INDIVIDUAL COMPONENTS												
METHANE	10.8	5.0	7.8	9.65	54.35	20.47	133	60	98	83	37	61
ETHYLENE	9.9	0.0	2.7	8.85	0.00	7.09	107	0	30	66	0	18
ETHANE	1.9	0.6	1.4	1.70	6.52	3.67	22	7	16	14	4	10
ACETYLENE	2.8	0.0	0.0	2.50	0.00	0.00	28	0	0	17	0	0
C3 + C3=	5.4	0.0	0.8	4.83	0.00	2.10	58	0	9	36	0	5
C=C=C	0.3	0.0	0.0	0.27	0.00	0.00	3	0	0	2	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.7	0.2	0.4	0.63	2.17	1.05	8	2	5	5	1	3
B1 + IB	2.7	0.0	0.0	2.41	0.00	0.00	29	0	0	18	0	0
NC4 +B=1=3	3.5	0.8	3.3	3.13	8.70	8.66	39	9	38	24	5	23
TBUTENE-2	0.8	0.0	0.2	0.71	0.00	0.52	9	0	2	5	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.8	0.0	0.2	0.71	0.00	0.52	9	0	2	5	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	3.1	0.6	2.5	2.77	6.52	6.56	34	6	28	21	4	18
PENTENE-1	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.2	0.0	0.0	0.18	0.00	0.00	2	0	0	1	0	0
NPENTANE	0.6	0.1	0.4	0.54	1.09	1.05	7	1	5	4	1	3
2MB=1=3	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90702
DATE RUN: 10 16 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8H196638 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
TPENT=2		0.4	0.0	0.1		0.36	0.00	0.26		4	0	1		3	0	1
CISPENT-2		0.1	0.0	0.0		0.09	0.00	0.00		1	0	0		1	0	0
2MBUT-2		0.7	0.0	0.1		0.63	0.00	0.26		8	0	1		5	0	1
22MBUTANE		0.2	0.6	0.0		0.18	6.52	0.00		2	6	0		1	4	0
CYPENTENE		0.2	0.0	0.0		0.18	0.00	0.00		2	0	0		1	0	0
3MPENTENE		0.1	0.0	0.0		0.09	0.00	0.00		1	0	0		1	0	0
CYPENTANE		0.1	0.0	0.0		0.09	0.00	0.00		1	0	0		1	0	0
23MBUTANE		0.8	0.1	0.4		0.71	1.09	1.05		9	1	5		5	1	3
2MPENTANE		1.7	0.1	0.8		1.52	1.09	2.10		19	1	9		12	1	6
3MPENTANE		0.9	0.1	0.4		0.80	1.09	1.05		10	1	5		6	1	3
HEXENE-1		0.3	0.0	0.0		0.27	0.00	0.00		3	0	0		2	0	0
N HEXANE		0.7	0.0	0.3		0.63	0.00	0.79		8	0	3		5	0	2
TC6=3,=2		0.4	0.0	0.0		0.36	0.00	0.00		4	0	0		3	0	0
CC6=3		0.1	0.0	0.0		0.09	0.00	0.00		1	0	0		1	0	0
2MPENTENE2		0.1	0.0	0.0		0.09	0.00	0.00		1	0	0		1	0	0
MCYP43M2C5		0.8	0.0	0.3		0.71	0.00	0.79		9	0	3		5	0	2
24MPENTANE		1.7	0.1	0.7		1.52	1.09	1.84		19	1	8		12	1	5
BENZENE		4.8	0.1	1.9		4.29	1.09	4.99		48	1	19		30	1	12
CYHEXANE		0.2	0.0	0.0		0.18	0.00	0.00		2	0	0		1	0	0
2MC6+23MC5		3.7	0.1	1.4		3.31	1.09	3.67		41	1	16		25	1	10
24MHEXANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
3MHEXANE		1.3	0.0	0.5		1.16	0.00	1.31		14	0	6		9	0	3
224MPENTAN		7.5	0.3	3.0		6.70	3.26	7.87		82	3	34		51	2	21
NHEPTANE		1.1	0.0	0.3		0.98	0.00	0.79		12	0	3		8	0	2
MCYHEXANE		0.3	0.0	0.1		0.27	0.00	0.26		3	0	1		2	0	1
25MHEXANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
24MC6+233M		1.6	0.0	0.6		1.43	0.00	1.57		18	0	7		11	0	4
234MC5		1.7	0.1	0.6		1.52	1.09	1.57		19	1	7		12	1	4
TOLUENE		9.4	0.2	2.0		8.40	2.17	5.25		95	2	21		59	1	13
23MC6+4MC7		1.0	0.0	0.3		0.89	0.00	0.79		11	0	3		7	0	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90702
DATE RUN: 10 16 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8M196638 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
34MHEXANE	1.1	0.0	0.4	0.98	0.00	1.05	12	0	4	8	0	3
3MHEPTANE	1.0	0.0	0.3	0.89	0.00	0.79	11	0	3	7	0	2
255MC6	0.9	0.0	0.3	0.80	0.00	0.79	10	0	3	6	0	2
N OCTANE	0.6	0.0	0.2	0.54	0.00	0.52	7	0	2	4	0	1
223MC6	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.2	0.0	0.1	0.18	0.00	0.26	2	0	1	1	0	1
ET BENZENE	1.6	0.0	0.3	1.43	0.00	0.79	16	0	3	10	0	2
M+PXYLENE	5.4	0.0	0.6	4.83	0.00	1.57	55	0	6	34	0	4
2+4MC8	0.6	0.0	0.2	0.54	0.00	0.52	7	0	2	4	0	1
O XYLENE	2.2	0.0	0.3	1.97	0.00	0.79	22	0	3	14	0	2
N NONANE	0.4	0.0	0.1	0.36	0.00	0.26	4	0	1	3	0	1
IPRBENZENE	0.3	0.0	0.1	0.27	0.00	0.26	3	0	1	2	0	1
NPRBENZENE	0.3	0.0	0.0	0.27	0.00	0.00	3	0	0	2	0	0
1M3ETBENZ	1.8	0.0	0.1	1.61	0.00	0.26	18	0	1	11	0	1
135MEBENZ	0.7	0.0	0.0	0.63	0.00	0.00	7	0	0	4	0	0
1M2ETBENZ	0.5	0.0	0.1	0.45	0.00	0.26	5	0	1	3	0	1
124MBENZ	1.8	0.0	0.2	1.61	0.00	0.52	18	0	2	11	0	1
SBUBENZENE	0.2	0.0	0.1	0.18	0.00	0.26	2	0	1	1	0	1
N DECANE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.4	0.0	0.0	0.36	0.00	0.00	4	0	0	3	0	0
INDANE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.2	0.0	0.0	0.18	0.00	0.00	2	0	0	1	0	0
UNKNOWNS	5.6	0.1	1.2	5.00	1.09	3.15	58	1	13	36	1	8

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90801
DATE RUN: 10 10 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8H196638 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	103.0	11.1	30.7
GC PPMC	92.3	10.9	28.2

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	9.8	5.7	7.1	10.62	52.29	25.18	145	77	91	90	48	56
SATURATES	32.6	4.3	14.4	35.32	39.45	51.06	432	52	164	268	32	102
OLEFINS	18.2	0.1	1.8	19.72	0.92	6.38	235	1	20	146	1	12
ACETYLENE	1.9	0.0	0.0	2.06	0.00	0.00	23	0	0	14	0	0
NAPTHENES	1.3	0.0	0.4	1.41	0.00	1.42	17	0	4	10	0	3
AROMATICS	24.0	0.4	3.6	26.00	3.67	12.77	292	4	38	181	3	23
BENZENE	3.5	0.2	1.0	3.79	1.83	3.55	42	2	10	26	1	6
TOLUENE	7.9	0.2	1.3	8.56	1.83	4.61	96	2	14	60	1	8
C8+ARON	12.6	0.0	1.3	13.65	0.00	4.61	156	0	14	97	0	9
UNKNOWN	4.5	0.4	0.9	0.00	0.00	0.00	56	4	10	35	3	6
INDIVIDUAL COMPONENTS												
METHANE	9.8	5.7	7.1	10.62	52.29	25.18	145	77	91	90	48	56
ETHYLENE	7.8	0.1	1.0	8.45	0.92	3.55	101	1	11	63	1	7
ETHANE	1.5	0.6	1.1	1.63	5.50	3.90	21	8	13	13	5	8
ACETYLENE	1.9	0.0	0.0	2.06	0.00	0.00	23	0	0	14	0	0
C3 + C3=	4.3	0.0	0.3	4.66	0.00	1.06	56	0	3	35	0	2
C=C=C	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.4	0.2	0.4	0.43	1.83	1.42	5	2	5	3	2	3
B1 + IB	2.0	0.0	0.0	2.17	0.00	0.00	26	0	0	16	0	0
NC4 +B=1=3	3.5	1.0	2.6	3.79	9.17	9.22	47	12	30	29	8	19
TBUTENE-2	0.7	0.0	0.1	0.76	0.00	0.35	9	0	1	6	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.9	0.0	0.1	0.98	0.00	0.35	12	0	1	7	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	2.6	0.6	2.1	2.82	7.34	7.45	35	10	24	22	6	15
PENTENE-1	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.2	0.0	0.0	0.22	0.00	0.00	3	0	0	2	0	0
NPENTANE	0.5	0.2	0.4	0.54	1.83	1.42	7	2	5	4	2	3
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90801
DATE RUN: 10 10 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8M196638 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.3	0.0	0.1	0.33	0.00	0.35	4	0	1	2	0	1
CISPENT-2	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.7	0.0	0.2	0.76	0.00	0.71	9	0	2	6	0	1
22MBUTANE	0.1	0.5	0.0	0.11	4.59	0.00	1	6	0	1	4	0
CYPENTENE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	0.5	0.1	0.3	0.54	0.92	1.06	7	1	3	4	1	2
2MPENTANE	1.0	0.1	0.6	1.08	0.92	2.13	13	1	7	8	1	4
3MPENTANE	0.7	0.1	0.3	0.76	0.92	1.06	9	1	3	6	1	2
HEXENE-1	0.2	0.0	0.0	0.22	0.00	0.00	3	0	0	2	0	0
N HEXANE	0.5	0.0	0.2	0.54	0.00	0.71	7	0	2	4	0	1
TC6=3,=2	0.4	0.0	0.0	0.43	0.00	0.00	5	0	0	3	0	0
CC6=3	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
MCYP43M2C5	0.6	0.0	0.2	0.65	0.00	0.71	8	0	2	5	0	1
24MPENTANE	1.3	0.1	0.5	1.41	0.92	1.77	17	1	6	11	1	4
BENZENE	3.5	0.2	1.0	3.79	1.83	3.55	42	2	10	26	1	6
CYHEXANE	0.2	0.0	0.0	0.22	0.00	0.00	3	0	0	2	0	0
2MC6+23MC5	3.2	0.1	1.0	3.47	0.92	3.55	42	1	11	26	1	7
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.1	0.0	0.3	1.19	0.00	1.06	15	0	3	9	0	2
224MPENTAN	6.6	0.4	2.3	7.15	3.67	8.16	87	5	26	54	3	16
NHEPTANE	1.1	0.0	0.2	1.19	0.00	0.71	15	0	2	9	0	1
MCYHEXANE	0.3	0.0	0.1	0.33	0.00	0.35	4	0	1	2	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.5	0.0	0.4	1.63	0.00	1.42	20	0	5	12	0	3
234MC5	1.5	0.1	0.5	1.63	0.92	1.77	20	1	6	12	1	4
TOLUENE	7.9	0.2	1.3	8.56	1.83	4.61	96	2	14	60	1	8
23MC6+4MC7	0.9	0.0	0.2	0.98	0.00	0.71	12	0	2	7	0	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90801
DATE RUN: 10 10 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8H196638 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.0	0.0	0.3	1.08	0.00	1.06	13	0	3	8	0	2
3MHEPTANE	0.8	0.0	0.2	0.87	0.00	0.71	11	0	2	7	0	1
255MC6	0.8	0.0	0.2	0.87	0.00	0.71	11	0	2	7	0	1
N OCTANE	0.5	0.0	0.1	0.54	0.00	0.35	7	0	1	4	0	1
223MC6	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.2	0.0	0.1	0.22	0.00	0.35	3	0	1	2	0	1
ET BENZENE	1.3	0.0	0.1	1.41	0.00	0.35	16	0	1	10	0	1
M+PXYLENE	4.4	0.0	0.4	4.77	0.00	1.42	54	0	4	33	0	3
2+4MC8	0.5	0.0	0.1	0.54	0.00	0.35	7	0	1	4	0	1
O XYLENE	1.8	0.0	0.2	1.95	0.00	0.71	22	0	2	14	0	1
N NONANE	0.3	0.0	0.1	0.33	0.00	0.35	4	0	1	2	0	1
IPRBENZENE	0.2	0.0	0.1	0.22	0.00	0.35	2	0	1	2	0	1
NPRBENZENE	0.2	0.0	0.1	0.22	0.00	0.35	2	0	1	2	0	1
1M3ETBENZ	1.4	0.0	0.1	1.52	0.00	0.35	17	0	1	11	0	1
135MEBENZ	0.6	0.0	0.0	0.65	0.00	0.00	7	0	0	5	0	0
1M2ETBENZ	0.4	0.0	0.2	0.43	0.00	0.71	5	0	2	3	0	1
124MBENZ	1.5	0.0	0.1	1.63	0.00	0.35	18	0	1	11	0	1
SBUBENZENE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
N DECANE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.3	0.0	0.0	0.33	0.00	0.00	4	0	0	2	0	0
INDANE	0.2	0.0	0.0	0.22	0.00	0.00	2	0	0	2	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
UNKNOWNS	4.5	0.4	0.9	4.88	3.67	3.19	56	4	10	35	3	6

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90802
DATE RUN: 10 17 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8H196638 DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	97.7	9.3	30.9
GC PPMC	91.6	9.0	27.9

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	8.9	5.1	6.8	9.72	56.67	24.37	124	73	92	77	46	57
SATURATES	33.5	3.0	13.5	36.57	33.33	48.39	417	39	163	259	24	101
OLEFINS	17.7	0.2	2.0	19.32	2.22	7.17	215	3	24	134	2	15
ACETYLENE	2.4	0.0	0.0	2.62	0.00	0.00	27	0	0	17	0	0
NAPTHENES	1.5	0.0	0.4	1.64	0.00	1.43	18	0	5	11	0	3
AROMATICS	22.8	0.7	3.9	24.89	7.78	13.98	260	8	43	162	5	27
BENZENE	3.4	0.4	1.3	3.71	4.44	4.66	38	5	14	24	3	9
TOLUENE	7.8	0.3	1.3	8.52	3.33	4.66	89	4	14	55	2	9
C8+AROM	11.6	0.0	1.3	12.66	0.00	4.66	135	0	15	84	0	9
UNKNOWN	4.8	0.0	1.3	0.00	0.00	0.00	56	0	15	35	0	9
INDIVIDUAL COMPONENTS												
METHANE	8.9	5.1	6.8	9.72	56.67	24.37	124	73	92	77	46	57
ETHYLENE	8.1	0.2	1.3	8.84	2.22	4.66	98	3	15	61	2	10
ETHANE	1.5	0.7	1.2	1.64	7.78	4.30	20	9	15	12	6	9
ACETYLENE	2.4	0.0	0.0	2.62	0.00	0.00	27	0	0	17	0	0
C3 + C3=	4.3	0.0	0.4	4.69	0.00	1.43	52	0	5	32	0	3
C=C=C	0.2	0.0	0.0	0.22	0.00	0.00	2	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.4	0.1	0.2	0.44	1.11	0.72	5	1	2	3	1	2
B1 + IB	2.0	0.0	0.0	2.18	0.00	0.00	24	0	0	15	0	0
NC4 +B=1=3	3.2	0.5	2.1	3.49	5.56	7.53	40	7	26	25	4	16
TBUTENE-2	0.5	0.0	0.1	0.55	0.00	0.36	6	0	1	4	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.4	0.0	0.1	0.44	0.00	0.36	5	0	1	3	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	2.6	0.4	1.7	2.84	4.44	6.09	33	5	21	20	3	13
PENTENE-1	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.2	0.0	0.0	0.22	0.00	0.00	2	0	0	2	0	0
NPENTANE	0.5	0.1	0.3	0.55	1.11	1.08	6	1	4	4	1	2
2MB=1=3	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90802
DATE RUN: 10 17 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8H196638 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.3	0.0	0.0	0.33	0.00	0.00	4	0	0	2	0	0
CISPENT-2	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.5	0.0	0.1	0.55	0.00	0.36	6	0	1	4	0	1
22MBUTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTENE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
23MBUTANE	0.7	0.0	0.3	0.76	0.00	1.08	9	0	4	5	0	2
2MPENTANE	1.4	0.1	0.6	1.53	1.11	2.15	17	1	7	11	1	5
3MPENTANE	0.8	0.1	0.3	0.87	1.11	1.08	10	1	4	6	1	2
HEXENE-1	0.2	0.0	0.0	0.22	0.00	0.00	2	0	0	2	0	0
N HEXANE	0.6	0.0	0.2	0.66	0.00	0.72	7	0	2	5	0	2
TC6=3,=2	0.3	0.0	0.0	0.33	0.00	0.00	4	0	0	2	0	0
CC6=3	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
MCYP43M2C5	0.7	0.0	0.2	0.76	0.00	0.72	9	0	2	5	0	1
24MPENTANE	1.5	0.1	0.5	1.64	1.11	1.79	19	1	6	12	1	4
BENZENE	3.4	0.4	1.3	3.71	4.44	4.66	38	5	14	24	3	9
CYHEXANE	0.2	0.0	0.0	0.22	0.00	0.00	2	0	0	2	0	0
2MC6+23MC5	3.3	0.2	1.0	3.60	2.22	3.58	41	3	12	25	2	7
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.2	0.0	0.3	1.31	0.00	1.08	15	0	4	9	0	2
224MPENTAN	6.7	0.4	2.3	7.31	4.44	8.24	83	5	28	52	3	17
NHEPTANE	1.0	0.0	0.2	1.09	0.00	0.72	12	0	2	8	0	1
MCYHEXANE	0.3	0.0	0.1	0.33	0.00	0.36	4	0	1	2	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+23M	1.5	0.1	0.4	1.64	1.11	1.43	19	1	5	12	1	3
234MC5	1.5	0.1	0.5	1.64	1.11	1.79	19	1	6	12	1	4
TOLUENE	7.8	0.3	1.3	8.52	3.33	4.66	89	4	14	55	2	9
23MC6+4MC7	0.8	0.0	0.3	0.87	0.00	1.08	10	0	4	6	0	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90802
DATE RUN: 10 17 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8H196638 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.0	0.1	0.3	1.09	1.11	1.08	12	1	4	8	1	2
3MHEPTANE	0.9	0.0	0.2	0.98	0.00	0.72	11	0	2	7	0	1
25MC6	0.8	0.0	0.2	0.87	0.00	0.72	10	0	2	6	0	1
N OCTANE	0.6	0.0	0.1	0.66	0.00	0.36	7	0	1	5	0	1
223MC6	0.2	0.0	0.0	0.22	0.00	0.00	2	0	0	2	0	0
ETCYHEXANE	0.2	0.0	0.1	0.22	0.00	0.36	2	0	1	2	0	1
ET BENZENE	1.2	0.0	0.2	1.31	0.00	0.72	14	0	2	9	0	1
M+PXYLENE	4.2	0.0	0.4	4.59	0.00	1.43	48	0	4	30	0	3
2+4MC8	0.5	0.0	0.2	0.55	0.00	0.72	6	0	2	4	0	1
O XYLENE	1.6	0.0	0.2	1.75	0.00	0.72	18	0	2	11	0	1
N NONANE	0.3	0.0	0.1	0.33	0.00	0.36	4	0	1	2	0	1
IPRBENZENE	0.2	0.0	0.1	0.22	0.00	0.36	2	0	1	1	0	1
NPRBENZENE	0.2	0.0	0.0	0.22	0.00	0.00	2	0	0	1	0	0
1M3ETBENZ	1.2	0.0	0.1	1.31	0.00	0.36	14	0	1	9	0	1
135MEBENZ	0.5	0.0	0.1	0.55	0.00	0.36	6	0	1	4	0	1
1M2ETBENZ	0.4	0.0	0.0	0.44	0.00	0.00	5	0	0	3	0	0
124MBENZ	1.2	0.0	0.1	1.31	0.00	0.36	14	0	1	9	0	1
SBUBENZENE	0.2	0.0	0.0	0.22	0.00	0.00	2	0	0	1	0	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.3	0.0	0.1	0.33	0.00	0.36	3	0	1	2	0	1
INDANE	0.2	0.0	0.0	0.22	0.00	0.00	2	0	0	1	0	0
13ETBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
UNKNOWNS	4.8	0.0	1.3	5.24	0.00	4.66	56	0	15	35	0	9

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90811
DATE RUN: 10 11 78 AIR CONDITIONER USED
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8H196638 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	139.7	9.9	25.4
GC PPMC	134.8	8.7	23.8

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	11.6	5.8	7.9	8.61	66.67	33.19	156	70	92	97	44	57
SATURATES	52.0	2.2	10.1	38.58	25.29	42.44	626	24	106	389	15	66
OLEFINS	21.8	0.0	1.8	16.17	0.00	7.56	256	0	18	159	0	11
ACETYLENE	3.2	0.0	0.0	2.37	0.00	0.00	35	0	0	22	0	0
NAPTHENES	2.2	0.0	0.1	1.63	0.00	0.42	26	0	1	16	0	1
AROMATICS	36.5	0.1	3.7	27.08	1.15	15.55	403	1	36	250	1	22
BENZENE	4.1	0.1	1.4	3.04	1.15	5.88	45	1	13	28	1	8
TOLUENE	12.8	0.0	1.1	9.50	0.00	4.62	141	0	11	88	0	7
C8+AROM	19.6	0.0	1.2	14.54	0.00	5.04	220	0	12	137	0	7
UNKNOWN	7.5	0.6	0.2	0.00	0.00	0.00	84	6	2	52	4	1
INDIVIDUAL COMPONENTS												
METHANE	11.6	5.8	7.9	8.61	66.67	33.19	156	70	92	97	44	57
ETHYLENE	9.4	0.0	1.1	6.97	0.00	4.62	110	0	11	69	0	7
ETHANE	1.8	0.4	1.2	1.34	4.60	5.04	23	5	13	14	3	8
ACETYLENE	3.2	0.0	0.0	2.37	0.00	0.00	35	0	0	22	0	0
C3 + C3=	4.9	0.0	0.4	3.64	0.00	1.68	58	0	4	36	0	3
C=C=C	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.5	0.1	0.2	0.37	1.15	0.84	6	1	2	4	1	1
B1 + IB	2.3	0.0	0.0	1.71	0.00	0.00	27	0	0	17	0	0
NC4 +B=1=3	3.9	0.5	1.7	2.89	5.75	7.14	47	5	18	30	3	11
TBUTENE-2	0.7	0.0	0.1	0.52	0.00	0.42	8	0	1	5	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.8	0.0	0.1	0.59	0.00	0.42	9	0	1	6	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.0	0.15	0.00	0.00	2	0	0	1	0	0
ISOPENTANE	3.0	0.4	1.2	2.23	4.60	5.04	36	4	13	23	3	8
PENTENE-1	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.2	0.0	0.0	0.15	0.00	0.00	2	0	0	1	0	0
NPENTANE	0.6	0.1	0.2	0.45	1.15	0.84	7	1	2	5	1	1
2MB=1=3	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90811
DATE RUN: 10 11 78 AIR CONDITIONER USED
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8H196638 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.4	0.0	0.0	0.30	0.00	0.00	5	0	0	3	0	0
CISPENT-2	0.2	0.0	0.0	0.15	0.00	0.00	2	0	0	1	0	0
2MBUT-2	0.8	0.0	0.1	0.59	0.00	0.42	9	0	1	6	0	1
22MBUTANE	0.2	0.1	0.0	0.15	1.15	0.00	2	1	0	1	1	0
CYPENTENE	0.2	0.0	0.0	0.15	0.00	0.00	2	0	0	1	0	0
3MPENTENE	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
23MBUTANE	0.8	0.0	0.2	0.59	0.00	0.84	10	0	2	6	0	1
2MPENTANE	1.8	0.1	0.4	1.34	1.15	1.68	22	1	4	13	1	3
3MPENTANE	1.0	0.0	0.2	0.74	0.00	0.84	12	0	2	7	0	1
HEXENE-1	0.3	0.0	0.0	0.22	0.00	0.00	4	0	0	2	0	0
N HEXANE	0.7	0.0	0.1	0.52	0.00	0.42	8	0	1	5	0	1
TC6=3,=2	0.7	0.0	0.0	0.52	0.00	0.00	8	0	0	5	0	0
CC6=3	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.2	0.0	0.0	0.15	0.00	0.00	2	0	0	1	0	0
MCYP43M2C5	0.9	0.0	0.1	0.67	0.00	0.42	11	0	1	7	0	1
24MPENTANE	2.1	0.1	0.3	1.56	1.15	1.26	25	1	3	16	1	2
BENZENE	4.1	0.1	1.4	3.04	1.15	5.88	45	1	13	28	1	8
CYHEXANE	0.3	0.0	0.0	0.22	0.00	0.00	4	0	0	2	0	0
2MC6+23MC5	5.5	0.1	0.7	4.08	1.15	2.94	66	1	7	41	1	5
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.9	0.0	0.2	1.41	0.00	0.84	23	0	2	14	0	1
224MPENTAN	11.5	0.3	1.6	8.53	3.45	6.72	138	3	17	85	2	10
NHEPTANE	1.8	0.0	0.2	1.34	0.00	0.84	22	0	2	13	0	1
MCYHEXANE	0.5	0.0	0.0	0.37	0.00	0.00	6	0	0	4	0	0
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	2.6	0.0	0.3	1.93	0.00	1.26	31	0	3	19	0	2
234MC5	2.8	0.0	0.3	2.08	0.00	1.26	33	0	3	21	0	2
TOLUENE	12.8	0.0	1.1	9.50	0.00	4.62	141	0	11	88	0	7
23MC6+4MC7	1.6	0.0	0.2	1.19	0.00	0.84	19	0	2	12	0	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90811
DATE RUN: 10 11 78 AIR CONDITIONER USED
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8H196638 DRIVER: WARD FUEL: SUNNER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.9	0.0	0.2	1.41	0.00	0.84	23	0	2	14	0	1
3MHEPTANE	1.7	0.0	0.2	1.26	0.00	0.84	20	0	2	13	0	1
25MC6	1.5	0.0	0.2	1.11	0.00	0.84	18	0	2	11	0	1
N OCTANE	1.0	0.0	0.1	0.74	0.00	0.42	12	0	1	7	0	1
223MC6	0.2	0.0	0.0	0.15	0.00	0.00	2	0	0	1	0	0
ETCYHEXANE	0.4	0.0	0.0	0.30	0.00	0.00	5	0	0	3	0	0
ET BENZENE	2.0	0.0	0.1	1.48	0.00	0.42	22	0	1	14	0	1
M+PXYLENE	7.0	0.0	0.4	5.19	0.00	1.68	78	0	4	48	0	2
24MC8	0.9	0.0	0.1	0.67	0.00	0.42	11	0	1	7	0	1
O XYLENE	2.8	0.0	0.2	2.08	0.00	0.84	31	0	2	19	0	1
N NONANE	0.6	0.0	0.1	0.45	0.00	0.42	7	0	1	4	0	1
IPRBENZENE	0.5	0.0	0.1	0.37	0.00	0.42	6	0	1	3	0	1
NPRBENZENE	0.4	0.0	0.0	0.30	0.00	0.00	4	0	0	3	0	0
1M3ETBENZ	2.0	0.0	0.1	1.48	0.00	0.42	22	0	1	14	0	1
135MEBENZ	0.8	0.0	0.1	0.59	0.00	0.42	9	0	1	6	0	1
1M2ETBENZ	0.6	0.0	0.0	0.45	0.00	0.00	7	0	0	4	0	0
124MBENZ	2.1	0.0	0.1	1.56	0.00	0.42	23	0	1	15	0	1
SBUBENZENE	0.2	0.0	0.0	0.15	0.00	0.00	2	0	0	1	0	0
N DECANE	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.5	0.0	0.1	0.37	0.00	0.42	6	0	1	3	0	1
INDANE	0.2	0.0	0.0	0.15	0.00	0.00	2	0	0	1	0	0
13EDBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.2	0.0	0.0	0.15	0.00	0.00	2	0	0	1	0	0
1M3PRBENZ	0.3	0.0	0.0	0.22	0.00	0.00	3	0	0	2	0	0
UNKNOWNS	7.5	0.6	0.2	5.56	6.90	0.84	84	6	2	52	4	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90901
DATE RUN: 10 02 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8M196638 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	115.8	13.3	30.2
GC PPMC	103.5	11.9	28.2

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	10.8	4.8	6.8	10.43	40.34	24.11	153	70	80	95	44	50
SATURATES	39.6	5.7	15.6	38.26	47.90	55.32	501	75	165	311	46	103
OLEFINS	19.1	0.4	2.0	18.45	3.36	7.09	236	5	21	147	3	13
ACETYLENE	2.9	0.0	0.0	2.80	0.00	0.00	33	0	0	21	0	0
NAPTHENES	1.5	0.1	0.4	1.45	0.84	1.42	19	1	4	12	1	3
AROMATICS	24.5	0.2	3.1	23.67	1.68	10.99	284	2	30	177	1	19
BENZENE	3.6	0.1	0.9	3.48	0.84	3.19	41	1	9	26	1	5
TOLUENE	8.0	0.1	1.1	7.73	0.84	3.90	93	1	11	58	1	7
C8+AROM	12.9	0.0	1.1	12.46	0.00	3.90	152	0	11	95	0	7
UNKNOWN	5.1	0.7	0.3	0.00	0.00	0.00	60	9	3	37	5	2
INDIVIDUAL COMPONENTS												
METHANE	10.8	4.8	6.8	10.43	40.34	24.11	153	70	80	95	44	50
ETHYLENE	8.4	0.0	0.9	8.12	0.00	3.19	104	0	9	65	0	6
ETHANE	1.7	0.5	1.2	1.64	4.20	4.26	23	7	13	14	4	8
ACETYLENE	2.9	0.0	0.0	2.80	0.00	0.00	33	0	0	21	0	0
C3 + C3=	4.2	0.0	0.4	4.06	0.00	1.42	52	0	4	32	0	3
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.9	0.4	0.6	0.87	3.36	2.13	12	5	6	7	3	4
B1 + IB	1.8	0.0	0.0	1.74	0.00	0.00	22	0	0	14	0	0
NC4 +B=1=3	4.9	1.6	3.2	4.73	13.45	11.35	63	21	34	39	13	21
TBUTENE-2	0.7	0.1	0.2	0.68	0.84	0.71	9	1	2	5	1	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.7	0.1	0.1	0.68	0.84	0.35	9	1	1	5	1	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	4.1	1.5	2.8	3.96	12.61	9.93	52	20	30	32	12	19
PENTENE-1	0.1	0.0	0.1	0.10	0.00	0.35	1	0	1	1	0	1
2MBUT-1	0.2	0.0	0.0	0.19	0.00	0.00	2	0	0	2	0	0
NPENTANE	0.7	0.2	0.4	0.68	1.68	1.42	9	3	4	6	2	3
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90901
DATE RUN: 10 02 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8H196638 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.4	0.1	0.1	0.39	0.84	0.35	5	1	1	3	1	1
CISPENT-2	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.8	0.1	0.2	0.77	0.84	0.71	10	1	2	6	1	1
22MBUTANE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
CYPENTENE	0.2	0.0	0.0	0.19	0.00	0.00	2	0	0	1	0	0
3MPENTENE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
23MBUTANE	0.7	0.1	0.3	0.68	0.84	1.06	9	1	3	6	1	2
2MPENTANE	1.4	0.3	0.7	1.35	2.52	2.48	18	4	7	11	2	5
3MPENTANE	1.0	0.1	0.3	0.97	0.84	1.06	13	1	3	8	1	2
HEXENE-1	0.4	0.0	0.0	0.39	0.00	0.00	5	0	0	3	0	0
N HEXANE	0.6	0.0	0.2	0.58	0.00	0.71	8	0	2	5	0	1
TC6=3,=2	0.6	0.0	0.0	0.58	0.00	0.00	7	0	0	5	0	0
CC6=3	0.2	0.0	0.0	0.19	0.00	0.00	2	0	0	2	0	0
2MPENTENE2	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
MCYP43M2C5	0.7	0.1	0.2	0.68	0.84	0.71	9	1	2	5	1	1
24MPENTANE	1.6	0.1	0.5	1.55	0.84	1.77	20	1	5	13	1	3
BENZENE	3.6	0.1	0.9	3.48	0.84	3.19	41	1	9	26	1	5
CYHEXANE	0.2	0.0	0.0	0.19	0.00	0.00	2	0	0	2	0	0
2MC6+23MC5	3.5	0.2	0.9	3.38	1.68	3.19	44	3	9	27	2	6
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.2	0.0	0.3	1.16	0.00	1.06	15	0	3	9	0	2
224MPENTAN	7.2	0.5	2.1	6.96	4.20	7.45	91	7	22	56	4	14
NHEPTANE	1.1	0.0	0.2	1.06	0.00	0.71	14	0	2	9	0	1
MCYHEXANE	0.3	0.0	0.1	0.29	0.00	0.35	4	0	1	2	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.6	0.0	0.4	1.55	0.00	1.42	20	0	4	13	0	3
234MC5	1.7	0.0	0.4	1.64	0.00	1.42	21	0	4	13	0	3
TOLUENE	8.0	0.1	1.1	7.73	0.84	3.90	93	1	11	58	1	7
23MC6+4MC7	0.9	0.1	0.2	0.87	0.84	0.71	11	1	2	7	1	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90901
DATE RUN: 10 02 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8H196638 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
34MHEXANE		1.1	0.1	0.2		1.06	0.84	0.71		14	1	2		9	1	1
3MHEPTANE		1.0	0.0	0.2		0.97	0.00	0.71		13	0	2		8	0	1
255MC6		0.9	0.0	0.2		0.87	0.00	0.71		11	0	2		7	0	1
N OCTANE		0.6	0.0	0.1		0.58	0.00	0.35		8	0	1		5	0	1
223MC6		0.2	0.0	0.0		0.19	0.00	0.00		3	0	0		2	0	0
ETCYHEXANE		0.2	0.0	0.1		0.19	0.00	0.35		2	0	1		2	0	1
ET BENZENE		1.3	0.0	0.1		1.26	0.00	0.35		15	0	1		9	0	1
M+PXYLENE		4.7	0.0	0.4		4.54	0.00	1.42		55	0	4		34	0	2
244MC8		0.5	0.0	0.1		0.48	0.00	0.35		6	0	1		4	0	1
O XYLENE		1.9	0.0	0.2		1.84	0.00	0.71		22	0	2		14	0	1
N NONANE		0.3	0.0	0.1		0.29	0.00	0.35		4	0	1		2	0	1
IPRBENZENE		0.3	0.0	0.1		0.29	0.00	0.35		4	0	1		2	0	1
NPRBENZENE		0.2	0.0	0.0		0.19	0.00	0.00		2	0	0		1	0	0
1M3ETBENZ		1.4	0.0	0.1		1.35	0.00	0.35		16	0	1		10	0	1
135MEBENZ		0.5	0.0	0.0		0.48	0.00	0.00		6	0	0		4	0	0
1M2ETBENZ		0.4	0.0	0.1		0.39	0.00	0.35		5	0	1		3	0	1
124MBENZ		1.5	0.0	0.1		1.45	0.00	0.35		18	0	1		11	0	1
SBUBENZENE		0.1	0.0	0.0		0.10	0.00	0.00		1	0	0		1	0	0
N DECANE		0.1	0.0	0.0		0.10	0.00	0.00		1	0	0		1	0	0
123MBENZ		0.3	0.0	0.0		0.29	0.00	0.00		4	0	0		2	0	0
INDANE		0.1	0.0	0.0		0.10	0.00	0.00		1	0	0		1	0	0
13EBENZENE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
NBUBENZENE		0.1	0.0	0.0		0.10	0.00	0.00		1	0	0		1	0	0
1M3PRBENZ		0.1	0.0	0.0		0.10	0.00	0.00		1	0	0		1	0	0
UNKNOWNS		5.1	0.7	0.3		4.93	5.88	1.06		60	9	3		37	5	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90911
DATE RUN: 10 03 78 AIR CONDITIONER USED
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8H196638 DRIVER: WARD FUEL: SUNNER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	112.0	10.6	29.5
GC PPMC	108.0	9.6	27.1

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	12.4	5.0	7.3	11.48	52.08	26.94	163	63	89	102	39	56
SATURATES	34.8	3.0	12.5	32.22	31.25	46.13	411	34	137	255	21	85
OLEFINS	18.2	0.2	1.6	16.85	2.08	5.90	210	2	17	130	1	11
ACETYLENE	3.8	0.0	0.0	3.52	0.00	0.00	41	0	0	25	0	0
NAPTHENES	1.3	0.0	0.4	1.20	0.00	1.48	15	0	4	9	0	3
AROMATICS	31.0	0.2	4.6	28.70	2.08	16.97	336	2	46	209	1	29
BENZENE	3.9	0.1	1.3	3.61	1.04	4.80	42	1	13	26	1	8
TOLUENE	8.5	0.0	1.4	7.87	0.00	5.17	92	0	14	57	0	9
C8+AROM	18.6	0.1	1.9	17.22	1.04	7.01	205	1	19	127	1	12
UNKNOWN	6.5	1.2	0.7	0.00	0.00	0.00	72	13	7	45	8	4
INDIVIDUAL COMPONENTS												
METHANE	12.4	5.0	7.3	11.48	52.08	26.94	163	63	89	102	39	56
ETHYLENE	9.1	0.0	1.0	8.43	0.00	3.69	105	0	11	65	0	7
ETHANE	1.1	0.4	1.1	1.02	4.17	4.06	14	5	13	8	3	8
ACETYLENE	3.8	0.0	0.0	3.52	0.00	0.00	41	0	0	25	0	0
C3 + C3=	4.0	0.0	0.3	3.70	0.00	1.11	46	0	3	29	0	2
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.6	0.2	0.3	0.56	2.08	1.11	7	2	3	4	1	2
B1 + 1B	1.8	0.0	0.0	1.67	0.00	0.00	21	0	0	13	0	0
NC4 +B=1=3	3.7	0.8	2.2	3.43	8.33	8.12	44	9	24	27	6	15
TBUTENE-2	0.6	0.0	0.1	0.56	0.00	0.37	7	0	1	4	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.6	0.0	0.1	0.56	0.00	0.37	7	0	1	4	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	2.9	0.7	1.7	2.69	7.29	6.27	34	8	19	21	5	12
PENTENE-1	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.2	0.0	0.0	0.19	0.00	0.00	2	0	0	1	0	0
NPENTANE	0.5	0.1	0.3	0.46	1.04	1.11	6	1	3	4	1	2
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90911
DATE RUN: 10 03 78 AIR CONDITIONER USED
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8M196638 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.2	0.0	0.0	0.19	0.00	0.00	2	0	0	1	0	0
CISPENT-2	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.5	0.2	0.1	0.46	2.08	0.37	6	2	1	4	1	1
22MBUTANE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
CYPENTENE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	0.6	0.1	0.3	0.56	1.04	1.11	7	1	3	4	1	2
2MPENTANE	1.7	0.1	0.4	1.57	1.04	1.48	20	1	4	12	1	3
3MPENTANE	0.8	0.0	0.3	0.74	0.00	1.11	9	0	3	6	0	2
HEXENE-1	0.2	0.0	0.0	0.19	0.00	0.00	2	0	0	1	0	0
N HEXANE	0.5	0.0	0.2	0.46	0.00	0.74	6	0	2	4	0	1
TC6=3,=2	0.4	0.0	0.0	0.37	0.00	0.00	5	0	0	3	0	0
CC6=3	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
MCYP43M2C5	0.6	0.0	0.2	0.56	0.00	0.74	7	0	2	4	0	1
24MPENTANE	1.4	0.1	0.4	1.30	1.04	1.48	16	1	4	10	1	3
BENZENE	3.9	0.1	1.3	3.61	1.04	4.80	42	1	13	26	1	8
CYHEXANE	0.2	0.0	0.0	0.19	0.00	0.00	2	0	0	1	0	0
2MC6+23MC5	3.3	0.1	0.9	3.06	1.04	3.32	39	1	10	24	1	6
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.2	0.0	0.3	1.11	0.00	1.11	14	0	3	9	0	2
224MPENTAN	6.9	0.3	2.0	6.39	3.13	7.38	81	3	22	50	2	14
NHEPTANE	1.1	0.0	0.2	1.02	0.00	0.74	13	0	2	8	0	1
MCYHEXANE	0.3	0.0	0.1	0.28	0.00	0.37	3	0	1	2	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.5	0.0	0.4	1.39	0.00	1.48	18	0	4	11	0	3
234MC5	1.6	0.0	0.4	1.48	0.00	1.48	19	0	4	12	0	3
TOLUENE	8.5	0.0	1.4	7.87	0.00	5.17	92	0	14	57	0	9
23MC6+4MC7	0.9	0.1	0.2	0.83	1.04	0.74	11	1	2	7	1	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 90911
DATE RUN: 10 03 78 AIR CONDITIONER USED
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8H196638 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.0	0.0	0.2	0.93	0.00	0.74	12	0	2	7	0	1
3MHEPTANE	0.9	0.0	0.2	0.83	0.00	0.74	11	0	2	7	0	1
255MC6	0.8	0.0	0.2	0.74	0.00	0.74	9	0	2	6	0	1
N OCTANE	0.6	0.0	0.1	0.56	0.00	0.37	7	0	1	4	0	1
223MC6	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.2	0.0	0.1	0.19	0.00	0.37	2	0	1	1	0	1
ET BENZENE	1.6	0.0	0.2	1.48	0.00	0.74	17	0	2	11	0	1
M+PXYLENE	5.9	0.0	0.6	5.46	0.00	2.21	64	0	6	40	0	4
244MC8	0.6	0.0	0.1	0.56	0.00	0.37	7	0	1	4	0	1
O XYLENE	2.4	0.0	0.2	2.22	0.00	0.74	26	0	2	16	0	1
N NONANE	0.3	0.0	0.1	0.28	0.00	0.37	4	0	1	2	0	1
IPRBENZENE	0.3	0.0	0.1	0.28	0.00	0.37	3	0	1	2	0	1
NPRBENZENE	0.3	0.0	0.0	0.28	0.00	0.00	3	0	0	2	0	0
1M3ETBENZ	2.3	0.0	0.2	2.13	0.00	0.74	25	0	2	16	0	1
135MEBENZ	0.9	0.0	0.1	0.83	0.00	0.37	10	0	1	6	0	1
1M2ETBENZ	0.5	0.0	0.1	0.46	0.00	0.37	5	0	1	3	0	1
124MBENZ	2.8	0.1	0.2	2.59	1.04	0.74	31	1	2	19	1	1
SBUBENZENE	0.2	0.0	0.1	0.19	0.00	0.37	2	0	1	1	0	1
N DECANE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.7	0.0	0.1	0.65	0.00	0.37	8	0	1	5	0	1
INDANE	0.3	0.0	0.0	0.28	0.00	0.00	3	0	0	2	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.3	0.0	0.0	0.28	0.00	0.00	3	0	0	2	0	0
UNKNOWNS	6.5	1.2	0.7	6.02	12.50	2.58	72	13	7	45	8	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 91101
DATE RUN: 10 04 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8H196638 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	117.8	11.9	57.4
GC PPMC	103.5	9.9	50.5

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	10.5	4.5	8.1	10.14	45.45	16.04						
SATURATES	35.9	4.0	24.4	34.69	40.40	48.32	149	72	112	93	45	69
OLEFINS	16.1	0.2	6.4	15.56	2.02	12.67	458	58	301	284	36	187
ACETYLENE	4.0	0.0	0.0	3.86	0.00	0.00	200	3	77	125	2	48
NAPTHENES	1.5	0.0	0.6	1.45	0.00	1.19	46	0	0	29	0	0
							19	0	7	12	0	4
AROMATICS	29.4	0.9	9.6	28.41	9.09	19.01						
BENZENE	3.2	0.4	2.8	3.09	4.04	5.54	344	12	109	214	7	68
TOLUENE	7.7	0.3	3.3	7.44	3.03	6.53	37	5	31	23	3	19
C8+AROM	18.5	0.2	3.5	17.87	2.02	6.93	90	4	37	56	2	23
UNKNOWN	6.1	0.3	1.4	0.00	0.00	0.00	220	3	40	137	2	25
							73	4	16	45	3	10
INDIVIDUAL COMPONENTS												
METHANE	10.5	4.5	8.1	10.14	45.45	16.04						
ETHYLENE	7.6	0.2	3.6	7.34	2.02	7.13	149	72	112	93	45	69
ETHANE	1.4	0.4	1.5	1.35	4.04	2.97	95	3	43	59	2	27
ACETYLENE	4.0	0.0	0.0	3.86	0.00	0.00	19	6	19	12	4	12
C3 + C3=	3.7	0.0	1.6	3.57	0.00	3.17	46	0	0	29	0	0
							46	0	19	29	0	12
C=C=C	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.6	0.1	0.5	0.58	1.01	0.99	8	1	6	5	1	4
B1 + IB	1.5	0.0	0.4	1.45	0.00	0.79	19	0	5	12	0	3
NC4 +B=1=3	4.8	0.8	3.9	4.64	8.08	7.72	62	12	49	38	7	30
TBUTENE-2	0.6	0.0	0.3	0.58	0.00	0.59	7	0	4	5	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.5	0.0	0.2	0.48	0.00	0.40	6	0	2	4	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	3.4	0.6	3.0	3.29	6.06	5.94	44	9	37	27	5	23
PENTENE-1	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.2	0.0	0.0	0.19	0.00	0.00	2	0	0	2	0	0
NPENTANE	0.6	0.1	0.5	0.58	1.01	0.99	8	1	6	5	1	4
2MB=1=3	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 91101
DATE RUN: 10 04 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47ABH196638 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
TPENT=2	0.3	0.0	0.1	0.29	0.00	0.20	4	0	1	2	0	1
CISPENT-2	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.6	0.0	0.2	0.58	0.00	0.40	7	0	2	5	0	1
22MBUTANE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
CYPENTENE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.2	0.0	0.0	0.19	0.00	0.00	2	0	0	2	0	0
23MBUTANE	0.6	0.1	0.5	0.58	1.01	0.99	8	1	6	5	1	4
2MPENTANE	1.3	0.2	1.0	1.26	2.02	1.98	17	3	12	10	2	8
3MPENTANE	0.6	0.1	0.6	0.58	1.01	1.19	8	1	7	5	1	5
HEXENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
N HEXANE	0.4	0.0	0.3	0.39	0.00	0.59	5	0	4	3	0	2
TC6=3,=2	0.3	0.0	0.0	0.29	0.00	0.00	4	0	0	2	0	0
CC6=3	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
MCYP43M2C5	0.5	0.0	0.4	0.48	0.00	0.79	6	0	5	4	0	3
24MPENTANE	1.2	0.1	0.9	1.16	1.01	1.78	15	1	11	9	1	7
BENZENE	3.2	0.4	2.8	3.09	4.04	5.54	37	5	31	23	3	19
CYHEXANE	0.2	0.0	0.0	0.19	0.00	0.00	2	0	0	2	0	0
2MC6+23MC5	2.9	0.2	1.8	2.80	2.02	3.56	37	3	22	23	2	14
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.0	0.1	0.6	0.97	1.01	1.19	13	1	7	8	1	5
224MPENTAN	6.3	0.6	4.0	6.09	6.06	7.92	80	9	49	50	5	31
NHEPTANE	0.9	0.0	0.4	0.87	0.00	0.79	11	0	5	7	0	3
MCYHEXANE	0.3	0.0	0.1	0.29	0.00	0.20	4	0	1	2	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+23JM	1.6	0.1	0.8	1.55	1.01	1.58	20	1	10	13	1	6
234MC5	1.7	0.1	0.9	1.64	1.01	1.78	22	1	11	13	1	7
TOLUENE	7.7	0.3	3.3	7.44	3.03	6.53	90	4	37	56	2	23
23MC6+4MC7	0.9	0.1	0.5	0.87	1.01	0.99	11	1	6	7	1	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 91101
DATE RUN: 10 04 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8M196638 DRIVER: WAND FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			NG/MILE			NG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
3+4MHEXANE	1.2	0.1	0.6	1.16	1.01	1.19	15	1	7	9	1	5
3MHEPTANE	1.1	0.1	0.6	1.06	1.01	1.19	14	1	7	9	1	5
255MC6	1.0	0.1	0.6	0.97	1.01	1.19	13	1	7	8	1	5
N OCTANE	0.7	0.0	0.3	0.68	0.00	0.59	9	0	4	6	0	2
223MC6	0.1	0.0	0.1	0.10	0.00	0.20	1	0	1	1	0	1
ETCYHEXANE	0.3	0.0	0.1	0.29	0.00	0.20	4	0	1	2	0	1
ET BENZENE	1.6	0.0	0.4	1.55	0.00	0.79	19	0	5	12	0	3
M+PXYLENE	6.1	0.1	1.3	5.89	1.01	2.57	72	1	15	45	1	9
2+4MC8	0.8	0.0	0.3	0.77	0.00	0.59	10	0	4	6	0	2
O XYLENE	2.6	0.1	0.5	2.51	1.01	0.99	31	1	6	19	1	4
N NONANE	0.6	0.0	0.2	0.58	0.00	0.40	8	0	2	5	0	2
IPRBENZENE	0.6	0.0	0.2	0.58	0.00	0.40	7	0	2	4	0	1
NPRBENZENE	0.4	0.0	0.0	0.39	0.00	0.00	5	0	0	3	0	0
1M3ETBENZ	2.1	0.0	0.3	2.03	0.00	0.59	25	0	3	15	0	2
135MEBENZ	0.9	0.0	0.1	0.87	0.00	0.20	11	0	1	7	0	1
1M2ETBENZ	0.8	0.0	0.2	0.77	0.00	0.40	9	0	2	6	0	1
124MBENZ	2.3	0.0	0.3	2.22	0.00	0.59	27	0	3	17	0	2
SBUBENZENE	0.3	0.0	0.1	0.29	0.00	0.20	4	0	1	2	0	1
N DECANE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.4	0.0	0.1	0.39	0.00	0.20	5	0	1	3	0	1
INDANE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
13FBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
1M3PRBNZ	0.2	0.0	0.0	0.19	0.00	0.00	2	0	0	1	0	0
UNKNOWNS	6.1	0.3	1.4	5.89	3.03	2.77	73	4	16	45	3	10

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 91102
DATE RUN: 10 09 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47ARH196638 DRIVER: WARD FUEL: SUMMER

GAS CHROMATUGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	84.2	9.7	39.9
GC PPMC	55.5	8.2	28.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	7.4	5.0	6.2	13.33	60.98	21.91	144	81	107	89	50	66
SATURATES	17.6	2.5	13.9	31.71	30.49	49.12	306	36	214	190	23	133
OLEFINS	9.6	0.2	2.3	17.30	2.44	8.13	163	3	35	101	2	22
ACETYLENE	1.5	0.0	0.0	2.70	0.00	0.00	24	0	0	15	0	0
NAPTHENES	0.5	0.0	0.4	0.90	0.00	1.41	8	0	6	5	0	4
AROMATICS	14.5	0.3	4.8	26.13	3.66	16.96	231	4	68	144	2	42
BENZENE	2.3	0.3	1.6	4.14	3.66	5.65	36	4	22	23	2	14
TOLUENE	4.2	0.0	1.6	7.57	0.00	5.65	67	0	23	42	0	14
C8+AROM	8.0	0.0	1.6	14.41	0.00	5.65	130	0	23	81	0	14
UNKNOWN	4.4	0.2	0.7	0.00	0.00	0.00	71	3	10	44	2	6
INDIVIDUAL COMPONENTS												
METHANE	7.4	5.0	6.2	13.33	60.98	21.91	144	81	107	89	50	66
ETHYLENE	4.6	0.0	1.3	8.29	0.00	4.59	78	0	20	49	0	12
ETHANE	1.0	0.5	1.0	1.80	6.10	3.53	18	8	16	11	5	10
ACETYLENE	1.5	0.0	0.0	2.70	0.00	0.00	24	0	0	15	0	0
C3 + C3=	2.4	0.0	0.5	4.32	0.00	1.77	41	0	8	25	0	5
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.3	0.1	0.2	0.54	1.22	0.71	5	1	3	3	1	2
B1 + IB	1.0	0.0	0.0	1.80	0.00	0.00	17	0	0	11	0	0
NC4 +B=1=3	1.9	0.5	2.2	3.42	6.10	7.77	33	7	34	21	5	21
TBUTENE-2	0.4	0.0	0.1	0.72	0.00	0.35	7	0	2	4	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.3	0.0	0.1	0.54	0.00	0.35	5	0	2	3	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.18	0.00	0.00	2	0	0	1	0	0
ISOPENTANE	1.4	0.4	1.7	2.52	4.88	6.01	24	6	26	15	4	16
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	0.6	0.1	0.3	1.06	1.22	1.06	10	1	5	7	1	3
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 91102
DATE RUN: 10 09 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8N196638 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.1	0.0	0.1	0.18	0.00	0.35	2	0	2	1	0	1
CISPENT-2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-2	0.3	0.2	0.1	0.54	2.44	0.35	5	3	2	3	2	1
22MBUTANE	0.1	0.0	0.0	0.18	0.00	0.00	2	0	0	1	0	0
CYPENTENE	0.1	0.0	0.1	0.18	0.00	0.35	2	0	1	1	0	1
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	0.3	0.1	0.3	0.54	1.22	1.06	5	1	5	3	1	3
2MPENTANE	0.9	0.1	0.5	1.62	1.22	1.77	16	1	8	10	1	5
3MPENTANE	0.4	0.1	0.3	0.72	1.22	1.06	7	1	5	4	1	3
HEXENE-1	0.1	0.0	0.0	0.18	0.00	0.00	2	0	0	1	0	0
N HEXANE	0.3	0.0	0.2	0.54	0.00	0.71	5	0	3	3	0	2
TC6=3,=2	0.1	0.0	0.0	0.18	0.00	0.00	2	0	0	1	0	0
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.1	0.0	0.0	0.18	0.00	0.00	2	0	0	1	0	0
MCYP43M2C5	0.3	0.0	0.2	0.54	0.00	0.71	5	0	3	3	0	2
24MPENTANE	0.6	0.1	0.5	1.08	1.22	1.77	10	1	8	6	1	5
BENZENE	2.3	0.3	1.6	4.14	3.66	5.65	36	4	22	23	2	14
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	1.3	0.1	1.1	2.34	1.22	3.89	23	1	17	14	1	11
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.5	0.0	0.3	0.90	0.00	1.06	9	0	5	5	0	3
224MPENTAN	3.1	0.0	2.5	5.59	0.00	8.83	54	0	38	33	0	24
NHEPTANE	0.4	0.0	0.2	0.72	0.00	0.71	7	0	3	4	0	2
MCYHEXANE	0.1	0.0	0.1	0.18	0.00	0.35	2	0	2	1	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+23M	0.7	0.0	0.5	1.26	0.00	1.77	12	0	8	8	0	5
234MC5	0.8	0.4	0.5	1.44	4.88	1.77	14	6	8	9	4	5
TOLUENE	4.2	0.0	1.6	7.57	0.00	5.65	67	0	23	42	0	14
23MC6+4MC7	0.5	0.0	0.3	0.90	0.00	1.06	9	0	5	5	0	3

EFFECT OF AMBIENT TEMPLRATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 91102
DATE RUN: 10 09 78
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8M196638 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	0.6	0.0	0.3	1.08	0.00	1.06	10	0	5	6	0	3
3MHEPTANE	0.5	0.0	0.3	0.90	0.00	1.06	9	0	5	5	0	3
25MHC6	0.4	0.0	0.3	0.72	0.00	1.06	7	0	5	4	0	3
N OCTANE	0.3	0.0	0.1	0.54	0.00	0.35	5	0	2	3	0	1
223MHC6	0.1	0.0	0.0	0.18	0.00	0.00	2	0	0	1	0	0
ETCYHEXANE	0.1	0.0	0.1	0.18	0.00	0.35	2	0	2	1	0	1
ET BENZENE	0.7	0.0	0.2	1.26	0.00	0.71	11	0	3	7	0	2
M+PXYLENE	2.6	0.0	0.6	4.68	0.00	2.12	42	0	9	26	0	5
2+4MHC8	0.4	0.0	0.2	0.72	0.00	0.71	7	0	3	4	0	2
O XYLENE	1.1	0.0	0.2	1.98	0.00	0.71	18	0	3	11	0	2
N NONANE	0.2	0.0	0.1	0.36	0.00	0.35	3	0	2	2	0	1
IPRBENZENE	0.2	0.0	0.1	0.36	0.00	0.35	3	0	1	2	0	1
NPRBENZENE	0.2	0.0	0.0	0.36	0.00	0.00	3	0	0	2	0	0
1M3ETBENZ	0.9	0.0	0.1	1.62	0.00	0.35	15	0	1	9	0	1
135MEBENZ	0.4	0.0	0.1	0.72	0.00	0.35	6	0	1	4	0	1
1M2ETBENZ	0.3	0.0	0.0	0.54	0.00	0.00	5	0	0	3	0	0
124MBENZ	1.0	0.0	0.1	1.80	0.00	0.35	16	0	1	10	0	1
SBUBENZENE	0.1	0.0	0.1	0.18	0.00	0.35	2	0	1	1	0	1
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.2	0.0	0.1	0.36	0.00	0.35	3	0	1	2	0	1
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.3	0.0	0.0	0.54	0.00	0.00	5	0	0	3	0	0
1M3PRBENZ	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
UNKNOWNS	4.4	0.2	0.7	7.93	2.44	2.47	71	3	10	44	2	6

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 91111
DATE RUN: 10 05 78 AIR CONDITIONER USED
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8H196638 DRIVER: WARD FUEL: SUNNER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	109.0	21.7	56.3
GC PPMC	101.8	19.3	51.6

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	11.3	6.3	9.4	11.10	32.64	18.22	154	103	123	95	64	77
SATURATES	36.0	9.1	22.0	35.36	47.15	42.64	438	133	258	272	83	160
OLEFINS	16.8	0.8	7.1	16.50	4.15	13.76	200	11	81	124	7	51
ACETYLENE	2.0	0.0	0.0	1.96	0.00	0.00	22	0	0	14	0	0
NAPTHENES	1.5	0.2	0.6	1.47	1.04	1.16	18	3	7	11	2	4
AROMATICS	28.4	2.8	11.0	27.90	14.51	21.32	317	38	118	197	23	74
BENZENE	3.8	1.6	3.5	3.73	8.29	6.78	42	21	37	26	13	23
TOLUENE	8.4	0.7	3.4	8.25	3.63	6.59	94	9	37	58	6	23
C8+ARON	16.2	0.5	4.1	15.91	2.59	7.95	184	7	45	114	4	28
UNKNOWN	5.8	0.1	1.5	0.00	0.00	0.00	66	1	16	41	1	10
INDIVIDUAL COMPONENTS												
METHANE	11.3	6.3	9.4	11.10	32.64	18.22	154	103	123	95	64	77
ETHYLENE	7.6	0.5	3.7	7.47	2.59	7.17	90	7	42	56	4	26
ETHANE	1.5	0.6	1.5	1.47	3.11	2.91	19	9	18	12	6	11
ACETYLENE	2.0	0.0	0.0	1.96	0.00	0.00	22	0	0	14	0	0
C3 + C3=	3.9	0.2	1.8	3.83	1.04	3.49	46	3	21	29	2	13
C=C=C	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.4	0.2	0.4	0.39	1.04	0.78	5	3	5	3	2	3
B1 + 1B	1.8	0.0	0.6	1.77	0.00	1.16	21	0	7	13	0	4
NC4 +B=1=3	3.3	1.5	3.4	3.24	7.77	6.59	41	22	40	25	14	25
TBUTENE-2	0.6	0.0	0.3	0.59	0.00	0.58	7	0	3	4	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.4	0.0	0.3	0.39	0.00	0.58	5	0	3	3	0	2
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	2.6	1.2	2.6	2.55	6.22	5.04	32	18	31	20	11	19
PENTENE-1	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.2	0.0	0.0	0.20	0.00	0.00	2	0	0	1	0	0
NPENTANE	0.5	0.2	0.5	0.49	1.04	0.97	6	3	6	4	2	4
2MB=1=3	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 91111
DATE RUN: 10 05 78 AIR CONDITIONER USED
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8H196638 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.3	0.0	0.1	0.29	0.00	0.19	4	0	1	2	0	1
CISPENT-2	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.6	0.1	0.3	0.59	0.52	0.58	7	1	3	4	1	2
22MBUTANE	0.2	0.0	0.1	0.20	0.00	0.19	2	0	1	2	0	1
CYPENTENE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.1	0.0	0.10	0.52	0.00	1	1	0	1	1	0
23MBUTANE	0.5	0.2	0.4	0.49	1.04	0.78	6	3	5	4	2	3
2MPENTANE	1.4	0.4	1.0	1.38	2.07	1.94	17	6	12	11	4	7
3MPENTANE	0.7	0.2	0.5	0.69	1.04	0.97	9	3	6	5	2	4
HEXENE-1	0.2	0.0	0.0	0.20	0.00	0.00	2	0	0	1	0	0
N HEXANE	0.5	0.1	0.3	0.49	0.52	0.58	6	1	4	4	1	2
TC6=3,=2	0.4	0.0	0.0	0.39	0.00	0.00	5	0	0	3	0	0
CC6=3	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
MCYP43M2C5	0.6	0.1	0.4	0.59	0.52	0.78	7	1	5	4	1	3
24MPENTANE	1.4	0.3	0.8	1.38	1.55	1.55	17	4	9	11	3	6
BENZENE	3.8	1.6	3.5	3.73	8.29	6.78	42	21	37	26	13	23
CYHEXANE	0.2	0.0	0.0	0.20	0.00	0.00	2	0	0	1	0	0
2MC6+23MC5	3.4	0.7	1.7	3.34	3.63	3.29	41	10	20	26	6	12
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.2	0.2	0.6	1.18	1.04	1.16	15	3	7	9	2	4
224MPENTAN	7.3	1.6	3.7	7.17	8.29	7.17	88	23	43	55	14	27
NHEPTANE	1.1	0.1	0.4	1.08	0.52	0.78	13	1	5	8	1	3
MCYHEXANE	0.3	0.0	0.1	0.29	0.00	0.19	4	0	1	2	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.6	0.3	0.8	1.77	1.55	1.55	22	4	9	14	3	6
234MC5	1.9	0.3	0.8	1.87	1.55	1.55	23	4	9	14	3	6
TOLUENE	8.4	0.7	3.4	8.25	3.63	6.59	94	9	37	58	6	23
23MC6+4MC7	1.0	0.2	0.4	0.98	1.04	0.78	12	3	5	8	2	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 91111
DATE RUN: 10 05 78 AIR CONDITIONER USED
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8M196638 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.2	0.2	0.5	1.18	1.04	0.97	15	3	6	9	2	4
3MHEPTANE	1.1	0.1	0.4	1.08	0.52	0.78	13	1	5	8	1	3
25DMC6	1.0	0.2	0.4	0.98	1.04	0.78	12	3	5	8	2	3
N OCTANE	0.7	0.1	0.2	0.69	0.52	0.39	8	1	2	5	1	1
223MC6	0.1	0.0	0.1	0.10	0.00	0.19	1	0	1	1	0	1
ETCYHEXANE	0.3	0.0	0.1	0.29	0.00	0.19	4	0	1	2	0	1
ET BENZENE	1.5	0.0	0.4	1.47	0.00	0.78	17	0	4	10	0	3
M+PXYLENE	5.5	0.2	1.4	5.40	1.04	2.71	62	3	15	38	2	9
2+4MC8	0.7	0.1	0.3	0.69	0.52	0.58	8	1	3	5	1	2
O XYLENE	2.3	0.1	0.6	2.26	0.52	1.16	26	1	7	16	1	4
N NONANE	0.4	0.1	0.2	0.39	0.52	0.39	5	1	2	3	1	1
IPRBENZENE	0.4	0.1	0.1	0.39	0.52	0.19	5	1	1	3	1	1
NPRBENZENE	0.3	0.0	0.1	0.29	0.00	0.19	3	0	1	2	0	1
1M3ETBENZ	1.9	0.0	0.4	1.87	0.00	0.78	21	0	4	13	0	3
135MEBENZ	0.7	0.0	0.2	0.69	0.00	0.39	8	0	2	5	0	1
1M2ETBENZ	0.6	0.0	0.3	0.59	0.00	0.58	7	0	3	4	0	2
124MBENZ	2.0	0.1	0.4	1.96	0.52	0.78	23	1	4	14	1	3
SBUBENZENE	0.2	0.0	0.1	0.20	0.00	0.19	2	0	1	1	0	1
N DECANE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.4	0.0	0.1	0.39	0.00	0.19	5	0	1	3	0	1
INDANE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.2	0.0	0.0	0.20	0.00	0.00	2	0	0	1	0	0
UNKNOWNS	5.8	0.1	1.5	5.70	0.52	2.91	66	1	16	41	1	10

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 91112
DATE RUN: 10 06 78 AIR CONDITIONER USED
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8H196638 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	85.6	19.4	71.3
GC PPMC	78.5	19.1	68.5

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	9.9	5.2	10.0	12.61	27.23	14.60	133	81	127	83	50	79
SATURATES	27.7	9.5	29.2	35.29	49.74	42.63	333	132	332	207	82	206
OLEFINS	16.2	1.7	11.1	20.64	8.90	16.20	190	23	123	118	14	77
ACETYLENE	1.9	0.0	0.0	2.42	0.00	0.00	21	0	0	13	0	0
NAPTHENES	1.1	0.1	1.0	1.40	0.52	1.46	13	1	11	8	1	7
AROMATICS	19.7	2.5	14.7	25.10	13.09	21.46	217	32	153	135	20	95
BENZENE	3.2	1.5	4.2	4.08	7.85	6.13	35	19	43	22	12	27
TOLUENE	5.7	0.7	4.7	7.26	3.66	6.86	63	9	49	39	6	30
C8+AROM	10.8	0.3	5.8	13.76	1.57	8.47	121	4	61	75	2	38
UNKNOWN	2.0	0.1	2.5	0.00	0.00	0.00	22	1	27	14	1	16
INDIVIDUAL COMPONENTS												
METHANE	9.9	5.2	10.0	12.61	27.23	14.60	133	81	127	83	50	79
ETHYLENE	6.9	0.4	5.8	8.79	2.09	8.47	81	5	64	50	3	40
ETHANE	1.4	0.5	1.7	1.78	2.62	2.48	18	7	20	11	5	13
ACETYLENE	1.9	0.0	0.0	2.42	0.00	0.00	21	0	0	13	0	0
C3 + C3=	3.8	0.2	3.0	4.84	1.05	4.38	45	3	33	28	2	21
C=C=C	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.6	0.3	0.8	0.76	1.57	1.17	7	4	9	5	3	6
B1 + 1B	1.9	0.0	0.9	2.42	0.00	1.31	22	0	10	14	0	6
NC4 +B=1=3	3.7	1.7	4.5	4.71	8.90	6.57	45	24	52	28	15	32
TBUTENE-2	0.6	0.1	0.5	0.76	0.52	0.73	7	1	6	4	1	3
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.5	0.0	0.0	0.64	0.00	0.00	6	0	0	4	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.1	0.13	0.00	0.15	1	0	1	1	0	1
ISOPENTANE	3.2	1.5	3.7	4.06	7.65	5.40	39	21	42	24	13	26
PENTENE-1	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.2	0.0	0.0	0.25	0.00	0.00	2	0	0	1	0	0
NPENTANE	0.5	0.3	0.7	0.64	1.57	1.02	6	4	8	4	3	5
2MB=1=3	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 91112
DATE RUN: 10 06 78 AIR CONDITIONER USED
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A8H196638 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT*2	0.3	0.1	0.2	0.38	0.52	0.29	4	1	2	2	1	1
C1SPENT-2	0.1	0.0	0.1	0.13	0.00	0.15	1	0	1	1	0	1
2MBUT-2	0.6	0.9	0.5	0.76	4.71	0.73	7	12	6	4	8	3
22MBUTANL	0.2	0.0	0.1	0.25	0.00	0.15	2	0	1	1	0	1
CYPENTENE	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.1	0.0	0.1	0.13	0.00	0.15	1	0	1	1	0	1
23MBUTANE	0.6	0.2	0.6	0.76	1.05	0.88	7	3	7	4	2	4
2MPENTANE	1.1	0.4	1.2	1.40	2.09	1.75	13	6	14	8	3	8
3MPENTANE	0.6	0.2	0.7	0.75	1.05	1.02	7	3	8	4	2	5
HEXENE-1	0.2	0.0	0.0	0.25	0.00	0.00	2	0	0	1	0	0
N HEXANE	0.4	0.1	0.4	0.51	0.52	0.58	5	1	5	3	1	3
TC6=3,=2	0.3	0.0	0.0	0.38	0.00	0.00	4	0	0	2	0	0
CC6=3	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
MCYP43M2C5	0.4	0.1	0.5	0.51	0.52	0.73	5	1	6	3	1	3
24MPENTANE	1.0	0.3	1.0	1.27	1.57	1.46	12	4	11	7	3	7
BENZENE	3.2	1.5	4.2	4.08	7.85	6.13	35	19	43	22	12	27
CYHEXANE	0.2	0.0	0.0	0.25	0.00	0.00	2	0	0	1	0	0
2MC6+23MC5	2.1	0.6	2.2	2.68	3.14	3.21	25	8	25	16	5	15
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.7	0.2	0.7	0.89	1.05	1.02	8	3	8	5	2	5
224MPENTAN	4.9	1.6	4.9	6.24	8.38	7.15	59	22	55	36	14	34
NHEPTANE	0.7	0.1	0.5	0.89	0.52	0.73	8	1	6	5	1	4
MCYHEXANE	0.2	0.0	0.2	0.25	0.00	0.29	2	0	2	1	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.0	0.3	1.0	1.27	1.57	1.46	12	4	11	7	3	7
234MC5	1.1	0.3	1.0	1.40	1.57	1.46	13	4	11	8	3	7
TOLUENE	5.7	0.7	4.7	7.26	3.66	6.86	63	9	49	39	6	30
23MC6+4MC7	0.6	0.2	0.6	0.76	1.05	0.88	7	3	7	4	2	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 91112
DATE RUN: 10 06 78 AIR CONDITIONER USED
CAR: 1980 BUICK REGAL PROTOTYP VIN: 4J47A6M196638 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
24MHEXANE	0.7	0.2	0.7	0.89	1.05	1.02	8	3	8	5	2	5
3MHEPTANE	0.6	0.1	0.6	0.76	0.52	0.88	7	1	7	4	1	4
255MC6	0.6	0.1	0.6	0.76	0.52	0.88	7	1	7	4	1	4
N OCTANE	0.4	0.1	0.3	0.51	0.52	0.44	5	1	3	3	1	2
223MC6	0.1	0.0	0.1	0.13	0.00	0.15	1	0	1	1	0	1
ETCYHEXANE	0.2	0.0	0.2	0.25	0.00	0.29	2	0	2	1	0	1
ET BENZENE	1.0	0.0	0.7	1.27	0.00	1.02	11	0	7	7	0	5
M+PXYLENE	3.6	0.2	2.0	4.59	1.05	2.92	40	3	21	25	2	13
244MC8	0.5	0.1	0.4	0.64	0.52	0.58	6	1	5	4	1	3
O XYLENE	1.6	0.1	0.9	2.04	0.52	1.31	18	1	9	11	1	6
N NONANE	0.3	0.1	0.2	0.38	0.52	0.29	4	1	2	2	1	1
IPRBENZENE	0.2	0.0	0.2	0.25	0.00	0.29	2	0	2	1	0	1
NPRBENZENE	0.2	0.0	0.1	0.25	0.00	0.15	2	0	1	1	0	1
1M3ETBENZ	1.2	0.0	0.6	1.53	0.00	0.88	13	0	6	8	0	4
135MEBENZ	0.5	0.0	0.2	0.64	0.00	0.29	6	0	2	3	0	1
1M2ETBENZ	0.4	0.0	0.3	0.51	0.00	0.44	4	0	3	3	0	2
124MBENZ	1.3	0.0	0.5	1.66	0.00	0.73	15	0	5	9	0	3
SBUBENZENE	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
N DECANE	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.3	0.0	0.1	0.38	0.00	0.15	3	0	1	2	0	1
INDANE	0.2	0.0	0.1	0.25	0.00	0.15	2	0	1	1	0	1
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.1	0.13	0.00	0.15	1	0	1	1	0	1
1M3PRBENZ	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
UNKNOWNS	2.0	0.1	2.5	2.55	0.52	3.65	22	1	27	14	1	16

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100001
DATE RUN: 12 13 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 0

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	475.7	32.7	50.2
GC PPMC	486.2	28.3	40.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	36.7	7.7	6.3	7.55	27.21	15.63	500	168	101	311	104	63
SATURATES	187.7	7.4	17.5	38.61	26.15	43.42	2290	145	250	1423	90	156
OLEFINS	84.5	5.9	6.9	17.38	20.85	17.12	1007	113	96	626	70	60
ACETYLENE	17.9	0.0	0.0	3.68	0.00	0.00	198	0	0	123	0	0
NAPTHENES	9.1	0.2	0.6	1.87	0.71	1.49	108	4	8	67	2	5
AROMATICS	109.9	5.2	6.9	22.60	18.37	17.12	1230	93	91	764	58	56
BENZENE	15.6	1.5	1.7	3.21	5.30	4.22	173	27	22	107	17	14
TOLUENE	29.5	1.5	2.1	6.07	5.30	5.21	330	27	28	205	17	17
C8+AROM	64.8	2.2	3.1	13.33	7.77	7.69	737	40	41	458	25	26
UNKNOWN	40.4	1.9	2.1	0.00	0.00	0.00	461	35	28	286	22	17
INDIVIDUAL COMPONENTS												
METHANE	36.7	7.7	6.3	7.55	27.21	15.63	500	168	101	311	104	63
ETHYLENE	33.5	3.5	3.1	6.89	12.37	7.69	399	67	43	248	42	27
ETHANE	4.3	1.2	1.3	0.88	4.24	3.23	55	25	19	34	15	12
ACETYLENE	17.9	0.0	0.0	3.68	0.00	0.00	198	0	0	123	0	0
C3 + C3=	17.1	1.5	2.2	3.52	5.30	5.46	204	29	31	127	18	19
C=C=C	0.5	0.0	0.0	0.10	0.00	0.00	6	0	0	4	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	2.4	0.1	0.3	0.49	0.35	0.74	30	2	4	18	1	3
B1 + IB	8.5	0.4	0.8	1.75	1.41	1.99	101	8	11	63	5	7
NC4 +B=1-3	17.8	1.1	2.4	3.66	3.89	5.96	220	22	35	137	14	22
TBUTENE-2	2.2	0.2	0.2	0.45	0.71	0.50	26	4	3	16	2	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	2.2	0.1	0.2	0.45	0.35	0.50	26	2	3	16	1	2
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.6	0.0	0.0	0.12	0.00	0.00	7	0	0	4	0	0
ISOPENTANE	17.3	0.7	1.9	3.56	2.47	4.71	212	14	27	132	9	17
PENTENE-1	0.8	0.0	0.0	0.16	0.00	0.00	10	0	0	6	0	0
2MBUT-1	1.9	0.0	0.0	0.39	0.00	0.00	23	0	0	14	0	0
NPENTANE	3.1	0.2	0.5	0.64	0.71	1.24	38	4	7	24	2	4
2MB=1=3	0.6	0.0	0.0	0.12	0.00	0.00	7	0	0	4	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100001
DATE RUN: 12 13 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	2.4	0.1	0.1	0.49	0.35	0.25	29	2	1	18	1	1
CISPENT-2	1.7	0.0	0.0	0.35	0.00	0.00	20	0	0	13	0	0
2MBUT-2	4.4	0.1	0.2	0.90	0.35	0.50	52	2	3	33	1	2
22MBUTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTENE	0.5	0.0	0.0	0.10	0.00	0.00	6	0	0	4	0	0
3MPENTENE	0.4	0.0	0.0	0.08	0.00	0.00	5	0	0	3	0	0
CYPENTANE	0.4	0.0	0.0	0.08	0.00	0.00	5	0	0	3	0	0
23MBUTANE	3.8	0.1	0.3	0.78	0.35	0.74	46	2	4	29	1	3
2MPENTANE	9.5	0.2	0.7	1.95	0.71	1.74	116	4	10	72	2	6
3MPENTANE	5.2	0.2	0.5	1.07	0.71	1.24	63	4	7	39	2	4
HEXENE-1	1.5	0.0	0.1	0.31	0.00	0.25	18	0	1	11	0	1
N HEXANE	2.7	0.1	0.2	0.56	0.35	0.50	33	2	3	20	1	2
TC6=3.=2	3.9	0.0	0.0	0.80	0.00	0.00	46	0	0	29	0	0
CC6=3	0.7	0.0	0.0	0.14	0.00	0.00	8	0	0	5	0	0
2MPENTENE2	1.1	0.0	0.0	0.23	0.00	0.00	13	0	0	8	0	0
MCYP43M2C5	4.2	0.1	0.4	0.86	0.35	0.99	50	2	6	31	1	3
24MPENTANE	8.4	0.2	0.7	1.73	0.71	1.74	102	4	10	63	2	6
BENZENE	15.6	1.5	1.7	3.21	5.30	4.22	173	27	22	107	17	14
CYHEXANE	1.0	0.0	0.0	0.21	0.00	0.00	12	0	0	7	0	0
2MC6+23MC5	19.4	0.5	1.4	3.99	1.77	3.47	236	10	20	147	6	12
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	5.2	0.1	0.4	1.07	0.35	0.99	63	2	6	39	1	4
224MPENTAN	37.0	1.1	3.0	7.61	3.89	7.44	449	21	43	279	13	27
MHEPTANE	5.0	0.1	0.3	1.03	0.35	0.74	61	2	4	38	1	3
MCYHEXANE	2.2	0.1	0.1	0.45	0.35	0.25	26	2	1	16	1	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	8.6	0.2	0.6	1.77	0.71	1.49	104	4	9	65	2	5
234MC5	10.3	0.2	0.7	2.12	0.71	1.74	125	4	10	78	2	6
TOLUENE	29.5	1.5	2.1	6.07	5.30	5.21	330	27	28	205	17	17
23MC6+4MC7	4.6	0.2	0.4	0.95	0.71	0.99	56	4	6	35	2	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100001
DATE RUN: 12 13 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	4.7	0.2	0.4	0.97	0.71	0.99	57	4	6	35	2	4
3MHEPTANE	4.5	0.1	0.3	0.93	0.35	0.74	55	2	4	34	1	3
255MC6	4.7	0.1	0.4	0.97	0.35	0.99	57	2	6	35	1	4
N OCTANE	2.4	0.1	0.2	0.49	0.35	0.50	29	2	3	18	1	2
223MC6	0.8	0.2	0.1	0.16	0.71	0.25	10	4	1	6	2	1
ETCYHEXANE	1.3	0.0	0.1	0.27	0.00	0.25	15	0	1	10	0	1
ET BENZENE	5.0	0.2	0.0	1.03	0.71	0.00	56	4	0	35	2	0
M+PXYLENE	19.9	1.0	1.2	4.09	3.53	2.98	224	18	16	139	11	10
2+4MC8	2.9	0.1	0.3	0.60	0.35	0.74	35	2	4	22	1	3
O XYLENE	8.6	0.3	0.5	1.77	1.06	1.24	97	5	7	60	3	4
N NONANE	2.5	0.1	0.2	0.51	0.35	0.50	30	2	3	19	1	2
IPRBENZENE	2.1	0.1	0.1	0.43	0.35	0.25	24	2	1	15	1	1
NPRBENZENE	1.3	0.0	0.0	0.27	0.00	0.00	15	0	0	9	0	0
1M3ETBENZ	7.4	0.2	0.4	1.52	0.71	0.99	84	4	5	52	2	3
135MEBENZ	3.0	0.1	0.2	0.62	0.35	0.50	34	2	3	21	1	2
1M2ETBENZ	3.2	0.1	0.3	0.66	0.35	0.74	36	2	4	23	1	2
124MBENZ	9.3	0.2	0.3	1.91	0.71	0.74	105	4	4	66	2	2
SBUBENZENE	1.1	0.0	0.0	0.23	0.00	0.00	13	0	0	8	0	0
N DECANE	0.6	0.0	0.0	0.12	0.00	0.00	7	0	0	5	0	0
123MBENZ	2.3	0.0	0.1	0.47	0.00	0.25	26	0	1	16	0	1
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.7	0.0	0.0	0.14	0.00	0.00	8	0	0	5	0	0
1M3PHBENZ	0.9	0.0	0.0	0.19	0.00	0.00	10	0	0	6	0	0
UNKNOWNS	40.4	1.9	2.1	8.31	6.71	5.21	461	35	28	286	22	17

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100002
DATE RUN: 12 14 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 0

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	455.1	94.7	61.3
GC PPMC	464.4	48.1	51.0

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	40.1	7.4	8.1	8.63	15.38	15.88	537	297	126	334	185	78
SATURATES	171.2	12.7	19.4	36.86	26.40	38.04	2053	456	271	1276	284	168
OLEFINS	85.1	15.4	11.8	18.32	32.02	23.14	997	541	161	619	336	100
ACETYLENE	18.5	0.6	0.0	3.98	1.25	0.00	201	20	0	125	12	0
NAPTHENES	8.6	0.4	0.9	1.85	0.83	1.76	101	14	12	63	9	8
AROMATICS	100.8	8.6	8.8	21.71	17.88	17.25	1109	283	113	689	176	70
BENZENE	15.2	1.9	2.0	3.27	3.95	3.92	165	62	25	103	38	16
TOLUENE	25.8	2.4	2.3	5.56	4.99	4.51	284	79	29	176	49	18
C8+AROM	59.8	4.3	4.5	12.88	8.94	8.82	669	144	59	416	90	36
UNKNOWN	40.1	3.0	2.0	0.00	0.00	0.00	449	101	26	279	63	16
INDIVIDUAL COMPONENTS												
METHANE	40.1	7.4	8.1	8.63	15.38	15.88	537	297	126	334	185	78
ETHYLENE	35.5	8.6	5.4	7.64	17.88	10.59	416	302	74	258	188	46
ETHANE	4.4	1.3	1.7	0.95	2.70	3.33	55	49	25	34	30	15
ACETYLENE	18.5	0.6	0.0	3.98	1.25	0.00	201	20	0	125	12	0
C3 + C3=	17.2	4.2	3.4	3.70	8.73	6.67	201	147	46	125	92	29
C=C=C	0.5	0.0	0.0	0.11	0.00	0.00	6	0	0	3	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	2.4	0.3	0.5	0.52	0.62	0.98	29	11	7	18	7	4
B1 + 1B	8.5	1.3	1.2	1.83	2.70	2.35	100	46	16	62	28	10
NC4 +B=1=3	15.7	1.8	2.6	3.38	3.74	5.10	190	65	37	118	41	23
TBUTENE-2	2.1	0.2	0.4	0.45	0.42	0.78	25	7	5	15	4	3
22MPROPANE	0.0	0.5	0.0	0.00	1.04	0.00	0	18	0	0	11	0
CBUTENE-2	2.1	0.4	0.3	0.45	0.83	0.59	25	14	4	15	9	3
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.6	0.0	0.1	0.13	0.00	0.20	7	0	1	4	0	1
ISOPENTANE	15.6	1.2	2.2	3.36	2.49	4.31	188	43	31	117	27	19
PENTENE-1	0.8	0.0	0.0	0.17	0.00	0.00	9	0	0	6	0	0
2MBUT-1	1.8	0.0	0.0	0.39	0.00	0.00	21	0	0	13	0	0
NPENTANE	3.0	0.4	0.6	0.65	0.83	1.18	36	14	8	22	9	5
2MB=1=3	0.6	0.0	0.0	0.13	0.00	0.00	7	0	0	4	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100002
DATE RUN: 12 14 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WAHD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	2.3	0.3	0.1	0.50	0.62	0.20	27	11	1	17	7	1
CISPENT-2	1.2	0.0	0.1	0.26	0.00	0.20	14	0	1	9	0	1
2MBUT-2	4.2	0.4	0.4	0.90	0.83	0.78	49	14	5	31	9	3
22MBUTANE	0.1	0.0	0.2	0.02	0.00	0.39	1	0	3	1	0	2
CYPENTENE	0.5	0.0	0.0	0.11	0.00	0.00	6	0	0	4	0	0
3MPENTENE	0.4	0.0	0.0	0.09	0.00	0.00	5	0	0	3	0	0
CYPENTANE	0.4	0.0	0.1	0.09	0.00	0.20	5	0	1	3	0	1
23MBUTANE	3.5	0.2	0.4	0.75	0.42	0.78	42	7	6	26	4	3
2MPENTANE	8.6	0.5	0.9	1.85	1.04	1.76	103	18	13	64	11	8
3MPENTANE	4.7	0.4	0.6	1.01	0.83	1.18	56	14	8	35	9	5
HEXENE-1	1.4	0.0	0.1	0.30	0.00	0.20	16	0	1	10	0	1
N HEXANE	2.4	0.1	0.2	0.52	0.21	0.39	29	4	3	18	2	2
TC6=3,=2	3.6	0.0	0.3	0.78	0.00	0.59	42	0	4	26	0	3
CC6=3	0.7	0.0	0.0	0.15	0.00	0.00	8	0	0	5	0	0
2MPENTENE2	1.1	0.0	0.0	0.24	0.00	0.00	13	0	0	8	0	0
MCYP43M2C5	3.9	0.3	0.5	0.84	0.62	0.98	46	11	7	28	7	4
24MPENTANE	7.6	0.4	0.7	1.64	0.83	1.37	91	14	10	56	9	6
BENZENE	15.2	1.9	2.0	3.27	3.95	3.92	165	62	25	103	38	16
CYHEXANE	1.0	0.0	0.0	0.22	0.00	0.00	12	0	0	7	0	0
2MC6+23MC5	18.4	1.0	1.7	3.96	2.08	3.33	220	36	24	137	22	15
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	4.6	0.2	0.3	0.99	0.42	0.59	55	7	4	34	4	3
224MPENTAN	33.6	1.8	3.0	7.24	3.74	5.88	401	64	42	249	40	26
NHEPTANE	4.4	0.2	0.2	0.95	0.42	0.39	53	7	3	33	4	2
MCYHEXANE	2.1	0.1	0.2	0.45	0.21	0.39	25	4	3	15	2	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	7.0	0.4	0.5	1.51	0.83	0.98	83	14	7	52	9	4
234MC5	9.7	0.4	0.7	2.09	0.83	1.37	116	14	10	72	9	6
TOLUENE	25.8	2.4	2.3	5.56	4.99	4.51	284	79	29	176	49	18
23MC6+4MC7	4.3	0.4	0.5	0.93	0.83	0.98	51	14	7	32	9	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100002
DATE RUN: 12 14 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	4.2	0.3	0.4	0.90	0.62	0.78	50	11	6	31	7	3
3MHEPTANE	4.1	0.2	0.3	0.88	0.42	0.59	49	7	4	30	4	3
255MC6	4.2	0.2	0.3	0.90	0.42	0.59	50	7	4	31	4	3
N OCTANE	2.1	0.1	0.1	0.45	0.21	0.20	25	4	1	16	2	1
223MC6	0.8	0.0	0.0	0.17	0.00	0.00	10	0	0	6	0	0
ETCYHEXANE	1.2	0.0	0.1	0.26	0.00	0.20	14	0	1	9	0	1
ET BENZENE	4.6	0.4	0.4	0.99	0.83	0.78	51	13	5	32	8	3
M+PXYLENE	18.1	1.8	1.5	3.90	3.74	2.94	201	60	19	125	37	12
2+4MC8	2.7	0.1	0.3	0.58	0.21	0.59	32	4	4	20	2	3
O XYLENE	7.9	0.6	0.6	1.70	1.25	1.18	88	20	8	54	12	5
N NONANE	2.5	0.3	0.4	0.54	0.62	0.78	30	11	6	18	7	3
IPRBENZENE	2.0	0.1	0.2	0.43	0.21	0.39	22	3	3	14	2	2
NPRBENZENE	1.2	0.0	0.0	0.26	0.00	0.00	13	0	0	8	0	0
1M3ETBENZ	6.9	0.4	0.5	1.49	0.83	0.98	77	13	6	48	8	4
135MEBENZ	2.8	0.2	0.2	0.60	0.42	0.39	31	7	3	19	4	2
1M2ETBENZ	3.1	0.3	0.3	0.67	0.62	0.59	35	10	4	21	6	2
124MBENZ	8.5	0.4	0.6	1.83	0.83	1.18	95	13	8	59	8	5
SBUBENZENE	1.0	0.0	0.1	0.22	0.00	0.20	11	0	1	7	0	1
N DECANE	0.6	0.0	0.1	0.13	0.00	0.20	7	0	1	4	0	1
123MBENZ	2.1	0.1	0.1	0.45	0.21	0.20	23	3	1	15	2	1
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.7	0.0	0.0	0.15	0.00	0.00	8	0	0	5	0	0
1M3PRBENZ	0.9	0.0	0.0	0.19	0.00	0.00	10	0	0	6	0	0
UNKNOWNS	40.1	3.0	2.0	8.63	6.24	3.92	449	101	26	279	63	16

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100201
DATE RUN: 12 12 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 20

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	287.8	14.8	43.2
GC PPMC	274.1	10.3	35.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	27.6	4.2	6.1	10.07	40.78	17.28	389	95	95	242	59	59
SATURATES	100.8	2.4	14.6	36.77	23.30	41.36	1272	49	204	791	30	127
OLEFINS	47.5	0.8	5.9	17.33	7.77	16.71	586	16	81	364	10	50
ACETYLENE	11.1	0.0	0.0	4.05	0.00	0.00	127	0	0	79	0	0
NAPTHENES	4.9	0.1	0.5	1.79	0.97	1.42	60	2	7	38	1	4
AROMATICS	62.7	1.1	5.4	22.87	10.68	15.30	726	20	69	451	13	43
BENZENE	9.6	0.4	1.4	3.50	3.88	3.97	110	7	18	68	5	11
TOLUENE	16.7	0.5	1.8	6.09	4.85	5.10	193	9	23	120	6	14
C8+AROM	36.4	0.2	2.2	13.28	1.94	6.23	428	4	29	266	2	18
UNKNOWN	19.5	1.7	2.8	0.00	0.00	0.00	230	32	37	143	20	23
INDIVIDUAL COMPONENTS												
METHANE	27.6	4.2	6.1	10.07	40.78	17.28	389	95	95	242	59	59
ETHYLENE	23.1	0.6	2.7	8.43	5.83	7.65	285	12	37	177	7	23
ETHANE	3.5	0.5	1.2	1.28	4.85	3.40	46	11	18	29	7	11
ACETYLENE	11.1	0.0	0.0	4.05	0.00	0.00	127	0	0	79	0	0
C3 + C3=	11.6	0.1	1.8	4.23	0.97	5.10	143	2	25	89	1	15
C=C=C	0.2	0.0	0.0	0.07	0.00	0.00	2	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.2	0.0	0.2	0.44	0.00	0.57	15	0	3	10	0	2
B1 + IB	0.1	0.0	0.7	0.04	0.00	1.98	1	0	10	1	0	6
NC4 +B=1=3	9.8	0.4	2.0	3.58	3.88	5.67	125	8	28	78	5	18
TBUTENE-2	1.4	0.0	0.2	0.51	0.00	0.57	17	0	3	11	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.3	0.0	0.2	0.47	0.00	0.57	16	0	3	10	0	2
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.3	0.0	0.0	0.11	0.00	0.00	4	0	0	2	0	0
ISOPENTANE	8.9	0.3	1.6	3.25	2.91	4.53	113	6	23	70	4	14
PENTENE-1	0.3	0.0	0.0	0.11	0.00	0.00	4	0	0	2	0	0
2MBUT-1	0.9	0.0	0.0	0.33	0.00	0.00	11	0	0	7	0	0
NPENTANE	1.7	0.1	0.4	0.62	0.97	1.13	22	2	6	13	1	3
2MB=1=3	0.4	0.0	0.0	0.15	0.00	0.00	5	0	0	3	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100201
DATE RUN: 12 12 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
TPLNT=2	1.2	0.0	0.1	0.44	0.00	0.28	15	0	1	9	0	1
CISPENT-2	0.5	0.0	0.0	0.18	0.00	0.00	6	0	0	4	0	0
2MBUT-2	2.3	0.1	0.2	0.84	0.97	0.57	28	2	3	18	1	2
22MBUTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTENE	0.2	0.0	0.0	0.07	0.00	0.00	2	0	0	1	0	0
3MPENTENE	0.2	0.0	0.0	0.07	0.00	0.00	2	0	0	2	0	0
CYPENTANE	0.2	0.0	0.0	0.07	0.00	0.00	2	0	0	2	0	0
23MBUTANE	1.9	0.1	0.2	0.69	0.97	0.57	24	2	3	15	1	2
2MPENTANE	4.8	0.2	0.6	1.75	1.94	1.70	61	4	8	38	3	5
3MPENTANE	2.7	0.1	0.4	0.99	0.97	1.13	34	2	6	21	1	3
HEXENE-1	0.7	0.0	0.0	0.26	0.00	0.00	9	0	0	5	0	0
N HEXANE	1.3	0.1	0.2	0.47	0.97	0.57	16	2	3	10	1	2
TC6=3,=2	1.9	0.0	0.0	0.69	0.00	0.00	23	0	0	15	0	0
CC6=3	0.4	0.0	0.0	0.15	0.00	0.00	5	0	0	3	0	0
2MPENTENE2	0.5	0.0	0.0	0.18	0.00	0.00	6	0	0	4	0	0
MCYP43M2C5	2.2	0.1	0.3	0.80	0.97	0.85	27	2	4	17	1	3
24MPENTANE	4.4	0.1	0.6	1.61	0.97	1.70	55	2	8	34	1	5
BENZENE	9.6	0.4	1.4	3.50	3.88	3.97	110	7	18	68	5	11
CYHEXANE	0.7	0.0	0.0	0.26	0.00	0.00	9	0	0	5	0	0
2MC6+23MC5	10.1	0.1	1.2	3.68	0.97	3.40	127	2	17	79	1	10
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.7	0.0	0.3	0.99	0.00	0.85	34	0	4	21	0	3
224MPENTAN	19.9	0.1	2.6	7.26	0.97	7.37	250	2	36	155	1	22
NHEPTANE	2.6	0.0	0.3	0.95	0.00	0.85	33	0	4	20	0	3
MCYHEXANE	1.1	0.0	0.1	0.40	0.00	0.28	14	0	1	8	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	4.5	0.1	0.5	1.64	0.97	1.42	56	2	7	35	1	4
234MC5	5.4	0.1	0.5	1.97	0.97	1.42	68	2	7	42	1	4
TOLUENE	16.7	0.5	1.8	6.09	4.85	5.10	193	9	23	120	6	14
23MC6+4MC7	2.6	0.0	0.4	0.95	0.00	1.13	33	0	6	20	0	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100201
DATE RUN: 12 12 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.6	0.1	0.3	0.95	0.97	0.85	33	2	4	20	1	3
3MHEPTANE	2.5	0.0	0.3	0.91	0.00	0.85	31	0	4	19	0	3
255MC6	2.5	0.0	0.3	0.91	0.00	0.85	31	0	4	19	0	3
N OCTANE	1.3	0.0	0.1	0.47	0.00	0.28	16	0	1	10	0	1
223MC6	0.4	0.0	0.0	0.15	0.00	0.00	5	0	0	3	0	0
ETCYHEXANE	0.7	0.0	0.1	0.26	0.00	0.28	9	0	1	5	0	1
ET BENZENE	2.8	0.0	0.2	1.02	0.00	0.57	33	0	3	20	0	2
M+PXYLENE	11.2	0.2	1.0	4.09	1.94	2.83	131	4	13	81	2	8
2+4MC8	1.7	0.0	0.2	0.62	0.00	0.57	21	0	3	13	0	2
O XYLENE	5.4	0.0	0.4	1.97	0.00	1.13	63	0	5	39	0	3
N NONANE	1.5	0.0	0.2	0.55	0.00	0.57	19	0	3	12	0	2
IPRBENZENE	1.1	0.0	0.1	0.40	0.00	0.28	13	0	1	8	0	1
NPRBENZENE	0.6	0.0	0.0	0.22	0.00	0.00	7	0	0	4	0	0
1M3LTBENZ	4.0	0.0	0.1	1.46	0.00	0.28	47	0	1	29	0	1
135MEBENZ	1.7	0.0	0.1	0.62	0.00	0.28	20	0	1	12	0	1
1M2ETBENZ	1.8	0.0	0.1	0.66	0.00	0.28	21	0	1	13	0	1
124MBENZ	5.1	0.0	0.2	1.86	0.00	0.57	60	0	3	37	0	2
SBUBENZENE	0.6	0.0	0.0	0.22	0.00	0.00	7	0	0	4	0	0
N DECANE	0.3	0.0	0.0	0.11	0.00	0.00	4	0	0	2	0	0
123MBENZ	1.1	0.0	0.0	0.40	0.00	0.00	13	0	0	8	0	0
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.4	0.0	0.0	0.15	0.00	0.00	5	0	0	3	0	0
1M3PRBENZ	0.6	0.0	0.0	0.22	0.00	0.00	7	0	0	4	0	0
UNKNOWNS	19.5	1.7	2.8	7.11	16.50	7.93	230	32	37	143	20	23

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100203
DATE RUN: 12 18 76
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1763344616 DRIVER: FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 20

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	273.1	11.1	44.4
GC PPMC	242.3	10.0	31.9

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
MAJOR COMPONENTS												
METHANE	23.9	4.4	5.9	9.86	44.00	18.50	357	77	104	222	48	65
SATURATES	88.1	2.7	14.4	36.36	27.00	45.14	1178	42	228	732	26	142
OLEFINS	48.5	0.4	4.8	20.02	4.00	15.05	633	6	74	394	4	46
ACETYLENE	10.2	0.0	0.0	4.21	0.00	0.00	124	0	0	77	0	0
NAPTHENES	4.9	0.0	0.4	2.02	0.00	1.25	64	0	6	40	0	4
AROMATICS	47.6	0.9	4.2	19.65	9.00	13.17	584	13	61	363	8	38
BENZENE	7.4	0.3	1.2	3.05	3.00	3.76	90	4	17	56	3	11
TOLUENE	11.8	0.3	1.3	4.87	3.00	4.08	145	4	19	90	3	12
C8+AROM	28.4	0.3	1.7	11.72	3.00	5.33	354	4	25	220	3	16
UNKNOWN	19.1	1.6	2.2	0.00	0.00	0.00	239	23	33	148	15	20
INDIVIDUAL COMPONENTS												
METHANE	23.9	4.4	5.9	9.86	44.00	18.50	357	77	104	222	48	65
ETHYLENE	21.0	0.4	2.5	8.67	4.00	7.84	274	6	39	170	4	24
ETHANE	3.2	0.6	1.1	1.32	6.00	3.45	45	10	18	28	6	11
ACETYLENE	10.2	0.0	0.0	4.21	0.00	0.00	124	0	0	77	0	0
C3 + C3=	10.2	0.0	1.3	4.21	0.00	4.08	133	0	20	83	0	12
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.4	0.0	0.2	0.58	0.00	0.63	19	0	3	12	0	2
B1 + IB	4.2	0.0	0.4	1.73	0.00	1.25	55	0	6	34	0	4
NC4 +B=1=3	9.2	0.4	1.9	3.80	4.00	5.96	124	6	30	77	4	19
TBUTENE-2	1.5	0.0	0.2	0.62	0.00	0.63	20	0	3	12	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.7	0.0	0.1	0.70	0.00	0.31	22	0	2	14	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.3	0.0	0.0	0.12	0.00	0.00	4	0	0	2	0	0
ISOPENTANE	8.6	0.3	1.7	3.55	3.00	5.33	116	5	27	72	3	17
PENTENE-1	0.3	0.0	0.0	0.12	0.00	0.00	4	0	0	2	0	0
2MBUT-1	0.7	0.0	0.0	0.29	0.00	0.00	9	0	0	6	0	0
NPENTANE	2.0	0.0	0.6	0.83	0.00	1.88	27	0	10	17	0	6
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100203
DATE RUN: 12 18 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.5	0.0	0.1	0.62	0.00	0.31	20	0	2	12	0	1
CISPENT-2	0.5	0.0	0.0	0.21	0.00	0.00	7	0	0	4	0	0
2MBUT-2	2.7	0.0	0.2	1.11	0.00	0.63	35	0	3	22	0	2
22MBUTANE	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0
CYPENTENE	0.3	0.0	0.0	0.12	0.00	0.00	4	0	0	2	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.4	0.0	0.0	0.17	0.00	0.00	5	0	0	3	0	0
23MBUTANE	1.6	0.1	0.3	0.66	1.00	0.94	21	2	5	13	1	3
2MPENTANE	4.2	0.1	0.7	1.73	1.00	2.19	56	2	11	35	1	7
3MPENTANE	2.7	0.1	0.5	1.11	1.00	1.57	36	2	8	22	1	5
HEXENE-1	0.8	0.0	0.0	0.33	0.00	0.00	10	0	0	6	0	0
N HEXANE	1.1	0.0	0.2	0.45	0.00	0.63	15	0	3	9	0	2
TC6=3,=2	2.0	0.0	0.0	0.83	0.00	0.00	26	0	0	16	0	0
CC6=3	0.4	0.0	0.0	0.17	0.00	0.00	5	0	0	3	0	0
2MPENTENE2	0.4	0.0	0.0	0.17	0.00	0.00	5	0	0	3	0	0
MCYP43M2C5	2.2	0.0	0.3	0.91	0.00	0.94	29	0	5	18	0	3
24MPENTANE	3.8	0.1	0.5	1.57	1.00	1.57	51	2	8	31	1	5
BENZENE	7.4	0.3	1.2	3.05	3.00	3.76	90	4	17	56	3	11
CYHEXANE	0.7	0.0	0.0	0.29	0.00	0.00	9	0	0	6	0	0
2MC6+23MC5	9.7	0.2	1.3	4.00	2.00	4.08	129	3	21	80	2	13
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.1	0.0	0.3	0.87	0.00	0.94	28	0	5	17	0	3
224MPENTAN	16.3	0.4	2.3	6.73	4.00	7.21	217	6	36	135	4	22
NHEPTANE	2.0	0.0	0.2	0.83	0.00	0.63	27	0	3	17	0	2
MCYHEXANE	1.1	0.0	0.1	0.45	0.00	0.31	14	0	2	9	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	3.2	0.1	0.4	1.32	1.00	1.25	43	2	6	26	1	4
234MC5	4.6	0.1	0.5	1.90	1.00	1.57	61	2	8	38	1	5
TOLUENE	11.8	0.3	1.3	4.87	3.00	4.08	145	4	19	90	3	12
23MC6+4MC7	2.3	0.1	0.4	0.95	1.00	1.25	31	2	6	19	1	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100203
DATE RUN: 12 18 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.9	0.1	0.3	0.78	1.00	0.94	25	2	5	16	1	3
3MHEPTANE	1.9	0.0	0.2	0.78	0.00	0.63	25	0	3	16	0	2
255MC6	1.8	0.0	0.3	0.74	0.00	0.94	24	0	5	15	0	3
N OCTANE	0.9	0.0	0.1	0.37	0.00	0.31	12	0	2	7	0	1
223MC6	0.4	0.0	0.0	0.17	0.00	0.00	5	0	0	3	0	0
ETCYHEXANE	0.5	0.0	0.0	0.21	0.00	0.00	7	0	0	4	0	0
ET BENZENE	2.1	0.0	0.2	0.87	0.00	0.63	26	0	3	16	0	2
M+PXYLENE	8.5	0.2	0.7	3.51	2.00	2.19	105	3	10	65	2	6
2+4MC8	1.4	0.0	0.2	0.58	0.00	0.63	19	0	3	12	0	2
O XYLENE	3.6	0.1	0.2	1.49	1.00	0.63	44	1	3	28	1	2
N NONANE	1.4	0.0	0.2	0.58	0.00	0.63	19	0	3	12	0	2
IPRBENZENE	0.9	0.0	0.1	0.37	0.00	0.31	11	0	1	7	0	1
NPRBENZENE	0.4	0.0	0.0	0.17	0.00	0.00	5	0	0	3	0	0
1M3ETBENZ	3.3	0.0	0.0	1.36	0.00	0.00	41	0	0	25	0	0
135MEBENZ	1.4	0.0	0.2	0.58	0.00	0.63	17	0	3	11	0	2
1M2ETBENZ	1.6	0.0	0.3	0.66	0.00	0.94	20	0	4	12	0	3
124MBENZ	4.0	0.0	0.0	1.65	0.00	0.00	50	0	0	31	0	0
SBUBENZENE	0.7	0.0	0.0	0.29	0.00	0.00	9	0	0	5	0	0
N DECANE	0.3	0.0	0.0	0.12	0.00	0.00	4	0	0	2	0	0
123MBENZ	0.9	0.0	0.0	0.37	0.00	0.00	11	0	0	7	0	0
INDANE	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.4	0.0	0.0	0.17	0.00	0.00	5	0	0	3	0	0
1M3PRBENZ	0.5	0.0	0.0	0.21	0.00	0.00	6	0	0	4	0	0
UNKNOWNS	19.1	1.6	2.2	7.88	16.00	6.90	239	23	33	148	15	20

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100401
DATE RUN: 12 08 76
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 40

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	187.0	15.6	47.0
GC PPMC	185.1	14.2	39.6

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	18.4	5.2	6.7	9.94	36.62	16.92	243	88	98	151	55	61
SATURATES	66.3	4.6	16.1	35.82	32.39	40.66	784	70	211	487	43	131
OLEFINS	35.4	0.9	6.6	19.12	6.34	16.67	409	13	84	254	8	52
ACETYLENE	6.8	0.0	0.0	3.67	0.00	0.00	73	0	0	45	0	0
NAPTHENES	3.6	0.1	0.5	1.94	0.70	1.26	42	1	6	26	1	4
AROMATICS	41.1	2.3	7.2	22.20	16.20	18.18	445	32	86	277	20	54
BENZENE	0.5	0.6	1.5	3.51	4.23	3.79	70	8	18	43	5	11
TOLUENE	11.1	0.6	2.1	6.00	4.23	5.30	120	8	25	75	5	16
C8+AROM	23.5	1.1	3.6	12.70	7.75	9.09	259	16	44	161	10	27
UNKNOWN	13.5	1.1	2.5	0.00	0.00	0.00	149	16	31	93	10	19
INDIVIDUAL COMPONENTS												
METHANE	18.4	5.2	6.7	9.94	36.62	16.92	243	88	98	151	55	61
ETHYLENE	15.0	0.9	3.1	8.10	6.34	7.83	179	13	40	108	8	25
ETHANE	2.6	0.8	1.3	1.40	5.63	3.28	32	13	18	20	8	11
ACETYLENE	6.8	0.0	0.0	3.67	0.00	0.00	73	0	0	45	0	0
C3 + C3=	8.4	0.0	2.1	4.54	0.00	5.30	97	0	27	60	0	17
C=C=C	0.2	0.0	0.0	0.11	0.00	0.00	2	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.9	0.1	0.3	0.49	0.70	0.76	11	2	4	7	1	2
B1 + IB	4.2	0.0	0.7	2.27	0.00	1.77	48	0	9	30	0	6
NC4 +B=1=3	6.6	0.8	2.4	3.57	5.63	6.06	79	12	32	49	8	20
TBUTENE-2	1.0	0.0	0.2	0.54	0.00	0.51	12	0	3	7	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.9	0.0	0.2	0.49	0.00	0.51	10	0	3	6	0	2
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.0	0.11	0.00	0.00	2	0	0	1	0	0
ISOPENTANE	5.6	0.5	1.8	3.03	3.52	4.56	67	8	24	41	5	15
PENTENE-1	0.2	0.0	0.0	0.11	0.00	0.00	2	0	0	1	0	0
2MBUT-1	0.5	0.0	0.0	0.27	0.00	0.00	6	0	0	4	0	0
NPENTANE	1.0	0.1	0.5	0.54	0.70	1.26	12	2	7	7	1	4
2MB=1=3	0.3	0.0	0.0	0.16	0.00	0.00	3	0	0	2	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100401
DATE RUN: 12 08 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVEN: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.7	0.0	0.0	0.38	0.00	0.00	8	0	0	5	0	0
CISPENT-2	0.3	0.0	0.0	0.16	0.00	0.00	3	0	0	2	0	0
2MBUT-2	1.4	0.0	0.3	0.76	0.00	0.76	16	0	4	10	0	2
22MBUTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTENE	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.2	0.0	0.0	0.11	0.00	0.00	2	0	0	1	0	0
23MBUTANE	1.2	0.1	0.3	0.65	0.70	0.76	14	2	4	9	1	2
2MPENTANE	2.8	0.2	0.8	1.51	1.41	2.02	33	3	10	21	2	7
3MPENTANE	1.5	0.1	0.4	0.81	0.70	1.01	18	2	5	11	1	3
MEXENE-1	0.4	0.0	0.0	0.22	0.00	0.00	5	0	0	3	0	0
N HEXANE	0.8	0.0	0.2	0.43	0.00	0.51	9	0	3	6	0	2
TC6=3,=2	1.0	0.0	0.0	0.54	0.00	0.00	12	0	0	7	0	0
CC6=3	0.2	0.0	0.0	0.11	0.00	0.00	2	0	0	1	0	0
2MPENTENE2	0.3	0.0	0.0	0.16	0.00	0.00	3	0	0	2	0	0
MCYP43M2C5	1.3	0.1	0.3	0.70	0.70	0.76	15	1	4	9	1	2
24MPENTANE	2.6	0.1	0.6	1.40	0.70	1.52	31	2	8	19	1	5
BENZENE	6.5	0.6	1.5	3.51	4.23	3.79	70	8	18	43	5	11
CYHEXANE	0.6	0.0	0.0	0.32	0.00	0.00	7	0	0	4	0	0
2MC6+23MC5	6.3	0.3	1.3	3.40	2.11	3.28	74	5	17	46	3	11
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.9	0.1	0.3	1.03	0.70	0.76	22	2	4	14	1	2
224MPENTAN	12.3	0.6	2.7	6.65	4.23	6.82	145	9	35	90	6	22
NHEPTANE	1.9	0.0	0.3	1.03	0.00	0.76	22	0	4	14	0	2
MCYHEXANE	0.8	0.0	0.1	0.43	0.00	0.25	9	0	1	6	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	3.1	0.1	0.5	1.67	0.70	1.26	36	2	7	23	1	4
234MC5	3.5	0.1	0.6	1.89	0.70	1.52	41	2	8	26	1	5
TOLUENE	11.1	0.6	2.1	6.00	4.23	5.30	120	8	25	75	5	16
23MC6+4MC7	1.8	0.1	0.4	0.97	0.70	1.01	21	2	5	13	1	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100401
DATE RUN: 12 08 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.9	0.1	0.3	1.03	0.70	0.76	22	2	4	14	1	2
3MHEPTANE	1.9	0.1	0.3	1.03	0.70	0.76	22	2	4	14	1	2
255MC6	1.9	0.1	0.3	1.03	0.70	0.76	22	2	4	14	1	2
N OCTANE	1.3	0.0	0.1	0.70	0.00	0.25	15	0	1	9	0	1
223MC6	0.7	0.0	0.0	0.38	0.00	0.00	8	0	0	5	0	0
ETCYHEXANE	0.7	0.0	0.1	0.38	0.00	0.25	8	0	1	5	0	1
ET BENZENE	2.1	0.1	0.3	1.13	0.70	0.76	23	1	4	14	1	2
M+PXYLENE	7.5	0.4	1.2	4.05	2.82	3.03	82	6	15	51	3	9
2+4MC8	1.2	0.1	0.2	0.65	0.70	0.51	14	2	3	9	1	2
O XYLENE	3.6	0.2	0.5	1.94	1.41	1.26	39	3	6	24	2	4
N NONANE	0.9	0.1	0.2	0.49	0.70	0.51	11	2	3	7	1	2
IPRBENZENE	0.7	0.0	0.1	0.38	0.00	0.25	8	0	1	5	0	1
NPRBENZENE	0.4	0.0	0.0	0.22	0.00	0.00	4	0	0	3	0	0
1M3ETBENZ	2.5	0.1	0.4	1.35	0.70	1.01	27	1	5	17	1	3
135MEBENZ	1.1	0.0	0.2	0.59	0.00	0.51	12	0	2	8	0	2
1M2ETBENZ	1.0	0.1	0.2	0.54	0.70	0.51	11	1	2	7	1	2
124MBENZ	3.1	0.2	0.5	1.67	1.41	1.26	34	3	6	21	2	4
SBUBENZENE	0.3	0.0	0.1	0.16	0.00	0.25	3	0	1	2	0	1
N DECANE	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.6	0.0	0.1	0.32	0.00	0.25	7	0	1	4	0	1
INDANE	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.2	0.0	0.0	0.11	0.00	0.00	2	0	0	1	0	0
1M3PRBENZ	0.3	0.0	0.0	0.16	0.00	0.00	3	0	0	2	0	0
UNKNOWNS	13.5	1.1	2.5	7.29	7.75	6.31	149	16	31	93	10	19

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100402
DATE RUN: 12 19 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVEN: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 40

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	187.4	10.3	44.9
GC PPMC	180.7	6.9	35.0

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	18.0	3.4	6.3	9.96	49.28	18.00	246	82	103	153	51	64
SATURATES	69.2	1.8	16.1	38.30	26.09	46.00	848	39	235	527	24	146
OLEFINS	34.8	0.2	5.5	19.26	2.90	15.71	417	4	78	259	3	49
ACETYLENE	8.1	0.0	0.0	4.48	0.00	0.00	90	0	0	56	0	0
NAPTHENES	4.0	0.0	0.5	2.21	0.00	1.43	48	0	7	30	0	4
AROMATICS	34.7	0.7	5.2	19.20	10.14	14.86	390	14	70	242	9	43
BENZENE	5.3	0.2	1.3	2.93	2.90	3.71	59	4	17	37	2	11
TOLUENE	8.8	0.3	1.6	4.87	4.35	4.57	99	6	21	61	4	13
C8+AROM	20.6	0.2	2.3	11.40	2.90	6.57	235	4	31	146	2	19
UNKNOWN	11.9	0.8	1.4	0.00	0.00	0.00	136	16	19	85	10	12
INDIVIDUAL COMPONENTS												
METHANE	18.0	3.4	6.3	9.96	49.28	18.00	246	82	103	153	51	64
ETHYLENE	14.5	0.2	2.9	8.02	2.90	8.29	174	4	41	108	3	26
ETHANE	2.6	0.4	1.3	1.44	5.80	3.71	33	9	20	21	6	12
ACETYLENE	8.1	0.0	0.0	4.48	0.00	0.00	90	0	0	56	0	0
C3 + C3=	7.9	0.0	1.9	4.37	0.00	5.43	95	0	27	59	0	17
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.2	0.0	0.4	0.66	0.00	1.14	15	0	6	9	0	4
B1 + IB	3.1	0.0	0.0	1.72	0.00	0.00	37	0	0	23	0	0
NC4 +B=1=3	7.8	0.2	2.6	4.32	2.90	7.43	97	4	38	60	3	24
TBUTENE-2	1.2	0.0	0.2	0.66	0.00	0.57	14	0	3	9	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.2	0.0	0.1	0.66	0.00	0.29	14	0	1	9	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.0	0.11	0.00	0.00	2	0	0	1	0	0
ISOPENTANE	7.3	0.2	1.8	4.04	2.90	5.14	90	4	26	56	3	16
PENTENE-1	0.2	0.0	0.0	0.11	0.00	0.00	2	0	0	1	0	0
2MBUT-1	0.5	0.0	0.0	0.28	0.00	0.00	6	0	0	4	0	0
NPENTANE	1.7	0.2	0.5	0.94	2.90	1.43	21	4	7	13	3	5
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100402
DATE RUN: 12 19 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
TPENT=2		1.1	0.0	0.1		0.61	0.00	0.29		13	0	1		8	0	1
CISPENT-2		0.4	0.0	0.0		0.22	0.00	0.00		5	0	0		3	0	0
2MBUT-2		2.0	0.0	0.3		1.11	0.00	0.86		24	0	4		15	0	3
22MBUTANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
CYPENTENE		0.2	0.0	0.0		0.11	0.00	0.00		2	0	0		1	0	0
3MPENTENE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
CYPENTANE		0.3	0.0	0.0		0.17	0.00	0.00		4	0	0		2	0	0
23MBUTANE		1.4	0.1	0.3		0.77	1.45	0.86		17	2	4		11	1	3
2MPENTANE		3.5	0.1	0.7		1.94	1.45	2.00		43	2	10		27	1	6
3MPENTANE		2.0	0.1	0.4		1.11	1.45	1.14		25	2	6		15	1	4
HEXENE-1		0.5	0.0	0.0		0.28	0.00	0.00		6	0	0		4	0	0
N HEXANE		0.9	0.0	0.2		0.50	0.00	0.57		11	0	3		7	0	2
TC6=3,=2		1.5	0.0	0.0		0.83	0.00	0.00		18	0	0		11	0	0
CC6=3		0.3	0.0	0.0		0.17	0.00	0.00		4	0	0		2	0	0
2MPENTENE2		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
MCYP43M2C5		2.0	0.0	0.3		1.11	0.00	0.86		24	0	4		15	0	3
24MPENTANE		2.9	0.0	0.6		1.60	0.00	1.71		35	0	9		22	0	5
BENZENE		5.3	0.2	1.3		2.93	2.90	3.71		59	4	17		37	2	11
CYHEXANE		0.6	0.0	0.0		0.33	0.00	0.00		7	0	0		4	0	0
2MC6+23MC5		7.4	0.1	1.4		4.10	1.45	4.00		90	2	20		56	1	13
24MHEXANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
3MHEXANE		1.6	0.0	0.3		0.89	0.00	0.86		20	0	4		12	0	3
224MPENTAN		12.3	0.3	2.6		6.81	4.35	7.43		150	6	38		93	4	23
NHEPTANE		1.4	0.0	0.2		0.77	0.00	0.57		17	0	3		11	0	2
MCYHEXANE		0.8	0.0	0.2		0.44	0.00	0.57		10	0	3		6	0	2
25MHEXANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
24MC6+233M		2.4	0.0	0.4		1.33	0.00	1.14		29	0	6		18	0	4
234MC5		3.3	0.1	0.6		1.83	1.45	1.71		40	2	9		25	1	5
TOLUENE		8.8	0.3	1.6		4.87	4.35	4.57		99	6	21		61	4	13
23MC6+4MC7		1.8	0.0	0.4		1.00	0.00	1.14		22	0	6		14	0	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100402
DATE RUN: 12 19 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.4	0.0	0.3	0.77	0.00	0.86	17	0	4	11	0	3
3MHEPTANE	1.4	0.0	0.2	0.77	0.00	0.57	17	0	3	11	0	2
255MC6	1.6	0.0	0.3	0.89	0.00	0.86	19	0	4	12	0	3
N OCTANE	0.6	0.0	0.1	0.33	0.00	0.29	7	0	1	5	0	1
223MC6	0.2	0.0	0.0	0.11	0.00	0.00	2	0	0	2	0	0
ETCYHEXANE	0.3	0.0	0.0	0.17	0.00	0.00	4	0	0	2	0	0
ET BENZENE	1.5	0.0	0.2	0.83	0.00	0.57	17	0	3	11	0	2
M+PXYLENE	6.3	0.1	0.9	3.49	1.45	2.57	71	2	12	44	1	8
2+4MC8	1.0	0.0	0.2	0.55	0.00	0.57	12	0	3	8	0	2
O XYLENE	2.6	0.1	0.3	1.44	1.45	0.86	29	2	4	18	1	3
N NONANE	1.2	0.0	0.3	0.66	0.00	0.86	15	0	4	9	0	3
IPRBENZENE	0.7	0.0	0.1	0.39	0.00	0.29	8	0	1	5	0	1
NPRBENZENE	0.3	0.0	0.0	0.17	0.00	0.00	3	0	0	2	0	0
1M3ETBENZ	2.4	0.0	0.2	1.33	0.00	0.57	27	0	3	17	0	2
135MEBENZ	1.0	0.0	0.4	0.55	0.00	1.14	11	0	5	7	0	3
1M2ETBENZ	1.1	0.0	0.1	0.61	0.00	0.29	13	0	1	8	0	1
124MBENZ	2.9	0.0	0.1	1.60	0.00	0.29	33	0	1	21	0	1
SBUBENZENE	0.4	0.0	0.0	0.22	0.00	0.00	5	0	0	3	0	0
N DECANE	0.3	0.0	0.0	0.17	0.00	0.00	4	0	0	2	0	0
123MBENZ	0.7	0.0	0.0	0.39	0.00	0.00	8	0	0	5	0	0
INDANE	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.3	0.0	0.0	0.17	0.00	0.00	3	0	0	2	0	0
1M3PRBENZ	0.3	0.0	0.0	0.17	0.00	0.00	3	0	0	2	0	0
UNKNOWNS	11.9	0.8	1.4	6.59	11.59	4.00	136	16	19	85	10	12

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100601
DATE RUN: 11 21 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 60

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	114.3	15.8	43.7
GC PPMC	98.6	12.7	34.5

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	12.9	4.9	6.9	13.08	38.58	20.00	200	98	110	124	61	68
SATURATES	37.1	3.3	15.2	37.63	25.98	44.06	514	59	217	320	37	135
OLEFINS	20.5	1.9	5.7	20.79	14.96	16.52	278	33	80	172	21	49
ACETYLENE	5.8	0.0	0.0	5.88	0.00	0.00	73	0	0	45	0	0
NAPTHENES	2.0	0.0	0.6	2.03	0.00	1.74	27	0	8	17	0	5
AROMATICS	14.2	1.1	3.6	14.40	8.66	10.43	181	18	47	112	11	29
BENZENE	2.7	0.5	1.1	2.74	3.94	3.19	34	8	14	21	5	9
TOLUENE	4.2	0.3	0.9	4.26	2.36	2.61	53	5	12	33	3	7
C8+AROM	7.3	0.3	1.6	7.40	2.36	4.64	94	5	21	59	3	13
UNKNOWN	6.1	1.5	2.5	0.00	0.00	0.00	79	25	33	49	16	21
INDIVIDUAL COMPONENTS												
METHANE	12.9	4.9	6.9	13.08	38.58	20.00	200	98	110	124	61	68
ETHYLENE	8.7	1.2	2.5	8.82	9.45	7.25	118	21	35	73	13	22
ETHANE	2.4	0.8	0.8	2.43	6.30	2.32	35	15	12	22	9	7
ACETYLENE	5.8	0.0	0.0	5.88	0.00	0.00	73	0	0	45	0	0
C3 + C3=	5.0	0.4	1.4	5.07	3.15	4.06	68	7	20	42	4	12
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.4	0.1	0.2	0.41	0.79	0.58	6	2	3	3	1	2
B1 + IB	2.5	0.0	0.5	2.54	0.00	1.45	34	0	7	21	0	4
NC4 +B=1=3	3.0	0.6	1.8	3.04	4.72	5.22	42	11	26	26	7	16
TBUTENE-2	0.5	0.0	0.2	0.51	0.00	0.58	7	0	3	4	0	2
22MPRUPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.5	0.1	0.1	0.51	0.79	0.29	7	2	1	4	1	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	3.7	0.4	2.0	3.75	3.15	5.80	52	7	29	32	4	18
PENTENE-1	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.3	0.1	0.0	0.30	0.79	0.00	4	2	0	3	1	0
NPENTANE	0.8	0.0	0.5	0.81	0.00	1.45	11	0	7	7	0	4
2MB=1=3	0.4	0.0	0.0	0.41	0.00	0.00	5	0	0	3	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100601
DATE RUN: 11 21 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WAHD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CISPENT-2	0.2	0.0	0.1	0.20	0.00	0.29	3	0	1	2	0	1
2MBUT-2	0.9	0.0	0.3	0.91	0.00	0.87	12	0	4	8	0	3
22MBUTANE	0.0	0.0	0.1	0.00	0.00	0.29	0	0	1	0	0	1
CYPENTENE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.1	0.0	0.3	0.10	0.00	0.87	1	0	4	1	0	3
23MBUTANE	0.8	0.1	0.0	0.81	0.79	0.00	11	2	0	7	1	0
2MPENTANE	2.3	0.0	0.8	2.33	0.00	2.32	32	0	11	20	0	7
3MPENTANE	1.2	0.1	0.5	1.22	0.79	1.45	17	2	7	10	1	4
HEXENE-1	0.3	0.0	0.0	0.30	0.00	0.00	4	0	0	3	0	0
N HEXANE	0.4	0.0	0.1	0.41	0.00	0.29	6	0	1	3	0	1
TC6=3.=2	0.5	0.0	0.2	0.51	0.00	0.58	7	0	3	4	0	2
CC6=3	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.2	0.1	0.4	0.20	0.79	1.16	3	2	6	2	1	3
MCYP43M2C5	1.0	0.0	0.0	1.01	0.00	0.00	14	0	0	6	0	0
24MPENTANE	1.7	0.1	0.0	1.72	0.79	0.00	23	2	0	15	1	0
BENZENE	2.7	0.5	1.1	2.74	3.94	3.19	34	8	14	21	5	9
CYHEXANE	0.3	0.0	0.0	0.30	0.00	0.00	4	0	0	3	0	0
2MC6+23MC5	3.6	0.2	1.5	3.65	1.57	4.35	50	4	21	31	2	13
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.8	0.1	0.3	0.81	0.79	0.87	11	2	4	7	1	3
224MPENTAN	7.2	0.6	3.1	7.30	4.72	8.99	99	11	44	62	7	27
NHEPTANE	0.6	0.0	0.2	0.61	0.00	0.58	8	0	3	5	0	2
MCYHEXANE	0.4	0.0	0.2	0.41	0.00	0.58	5	0	3	3	0	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.6	0.1	0.6	1.62	0.79	1.74	22	2	9	14	1	5
234MC5	1.8	0.1	0.7	1.83	0.79	2.03	25	2	10	15	1	6
TOLUENE	4.2	0.3	0.9	4.26	2.36	2.61	53	5	12	33	3	7
23MC6+4MC7	0.9	0.0	0.4	0.91	0.00	1.16	12	0	6	8	0	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100601
DATE RUN: 11 21 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			NG/MILE			NG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	0.7	0.0	0.3	0.71	0.00	0.87	10	0	4	6	0	3
3MHEPTANE	0.7	0.0	0.3	0.71	0.00	0.87	10	0	4	6	0	3
255MC6	1.0	0.0	0.4	1.01	0.00	1.16	14	0	6	9	0	4
N OCTANE	0.3	0.0	0.1	0.30	0.00	0.29	4	0	1	3	0	1
223MC6	0.1	0.0	0.1	0.10	0.00	0.29	1	0	1	1	0	1
ETCYHEXANE	0.2	0.0	0.1	0.20	0.00	0.29	3	0	1	2	0	1
ET BENZENE	0.6	0.0	0.2	0.61	0.00	0.58	8	0	3	5	0	2
M+PXYLENE	2.6	0.2	0.6	2.64	1.57	1.74	33	3	8	21	2	5
2+4MC8	0.5	0.0	0.2	0.51	0.00	0.58	7	0	3	4	0	2
O XYLENE	1.1	0.0	0.2	1.12	0.00	0.58	14	0	3	9	0	2
N NONANE	0.5	0.0	0.2	0.51	0.00	0.58	7	0	3	4	0	2
IPRBENZENE	0.3	0.0	0.1	0.30	0.00	0.29	4	0	1	2	0	1
NPRBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1M3ETBENZ	0.1	0.0	0.2	0.10	0.00	0.58	1	0	3	1	0	2
135MEBENZ	0.4	0.1	0.3	0.41	0.79	0.87	5	2	4	3	1	2
1M2ETBENZ	0.6	0.0	0.0	0.61	0.00	0.00	8	0	0	5	0	0
124MBENZ	1.0	0.0	0.0	1.01	0.00	0.00	13	0	0	8	0	0
SBUBENZENE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
N DECANE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.2	0.0	0.0	0.20	0.00	0.00	3	0	0	2	0	0
INDANE	0.2	0.0	0.0	0.20	0.00	0.00	3	0	0	2	0	0
1JEBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1M3PRBENZ	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
UNKNOWNS	6.1	1.5	2.5	6.19	11.81	7.25	79	25	33	48	16	21

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100602
DATE RUN: 12 07 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 60

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	151.8	18.0	61.0
GC PPMC	145.4	14.5	54.4

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
MAJOR COMPONENTS												
METHANE	14.8	6.0	8.7	10.18	41.38	15.99	201	115	121	125	72	75
SATURATES	51.1	4.3	21.1	35.14	29.66	38.79	621	74	262	386	46	163
OLEFINS	26.0	1.2	8.6	17.88	8.28	15.81	309	20	104	192	13	65
ACETYLENE	5.1	0.0	0.0	3.51	0.00	0.00	56	0	0	35	0	0
NAPTHENES	2.2	0.1	0.6	1.51	0.69	1.18	26	2	7	16	1	5
AROMATICS	38.3	2.2	12.6	26.34	15.17	23.16	427	35	144	265	22	89
BENZENE	5.9	0.7	2.4	4.06	4.83	4.41	65	11	27	40	7	17
TOLUENE	11.8	0.9	4.0	8.12	6.21	7.35	132	14	46	82	9	28
C8+AROM	20.6	0.6	6.2	14.17	4.14	11.40	233	10	72	145	6	45
UNKNOWN	7.9	0.7	2.8	0.00	0.00	0.00	90	11	33	56	7	20
INDIVIDUAL COMPONENTS												
METHANE	14.8	6.0	8.7	10.18	41.38	15.99	201	115	121	125	72	75
ETHYLENE	11.4	0.9	4.0	7.84	6.21	7.35	135	15	49	84	9	30
ETHANE	2.3	0.8	1.6	1.58	5.52	2.94	29	14	21	18	9	13
ACETYLENE	5.1	0.0	0.0	3.51	0.00	0.00	56	0	0	35	0	0
C3 + C3=	6.7	0.1	2.6	4.61	0.69	4.78	80	2	32	49	1	20
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.5	0.1	0.2	0.34	0.69	0.37	6	2	3	4	1	2
B1 + IB	3.1	0.0	1.1	2.13	0.00	2.02	37	0	13	23	0	8
NC4 +B=1=3	5.0	0.7	2.6	3.44	4.83	4.78	61	12	33	38	8	20
TBUTENE-2	0.7	0.0	0.3	0.48	0.00	0.55	8	0	4	5	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.6	0.0	0.2	0.41	0.00	0.37	7	0	2	4	0	2
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	4.1	0.4	2.0	2.82	2.76	3.68	50	7	25	31	4	16
PENTENE-1	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.3	0.0	0.0	0.21	0.00	0.00	4	0	0	2	0	0
NPENTANE	0.9	0.1	0.5	0.62	0.69	0.92	11	2	6	7	1	4
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100602
DATE RUN: 12 07 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVEN: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.6	0.0	0.1	0.41	0.00	0.18	7	0	1	4	0	1
CISPENT-2	0.2	0.0	0.0	0.14	0.00	0.00	2	0	0	1	0	0
2MBUT-2	0.9	0.1	0.3	0.62	0.69	0.55	11	2	4	7	1	2
22MBUTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTENE	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.0	0.1	0.0	0.00	0.69	0.00	0	2	0	0	1	0
CYPENTANE	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
23MBUTANE	0.9	0.1	0.4	0.62	0.69	0.74	11	2	5	7	1	3
2MPENTANE	1.8	0.2	0.9	1.24	1.38	1.65	22	3	11	14	2	7
3MPENTANE	1.3	0.1	0.5	0.89	0.69	0.92	16	2	6	10	1	4
HEXENE-1	0.3	0.0	0.0	0.21	0.00	0.00	4	0	0	2	0	0
N HEXANE	0.8	0.1	0.3	0.55	0.69	0.55	10	2	4	6	1	2
TC6=3,=2	0.7	0.0	0.0	0.48	0.00	0.00	8	0	0	5	0	0
CC6=3	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
MCYP43M2C5	1.0	0.1	0.4	0.69	0.69	0.74	12	2	5	7	1	3
24MPENTANE	2.2	0.1	0.8	1.51	0.69	1.47	27	2	10	17	1	6
BENZENE	5.9	0.7	2.4	4.06	4.83	4.41	65	11	27	40	7	17
CYHEXANE	0.3	0.0	0.0	0.21	0.00	0.00	4	0	0	2	0	0
2MC6+23MC5	4.8	0.3	1.7	3.30	2.07	3.13	58	5	21	36	3	13
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.6	0.1	0.6	1.10	0.69	1.10	19	2	7	12	1	5
224MPENTAN	9.6	0.6	3.7	6.60	4.14	6.80	116	10	46	72	6	28
NHEPTANE	1.4	0.0	0.5	0.96	0.00	0.92	17	0	6	11	0	4
MCYHEXANE	0.4	0.0	0.1	0.28	0.00	0.18	5	0	1	3	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	2.2	0.1	0.8	1.51	0.69	1.47	27	2	10	17	1	6
234MC5	2.3	0.1	0.8	1.58	0.69	1.47	28	2	10	17	1	6
TOLUENE	11.8	0.9	4.0	8.12	6.21	7.35	132	14	46	82	9	28
23MC6+4MC7	1.5	0.1	0.5	1.03	0.69	0.92	18	2	6	11	1	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100602
DATE RUN: 12 07 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.7	0.1	0.6	1.17	0.69	1.10	21	2	7	13	1	5
3MHEPTANE	1.5	0.1	0.5	1.03	0.69	0.92	18	2	6	11	1	4
25MHC6	1.7	0.1	0.5	1.17	0.69	0.92	20	2	6	13	1	4
N OCTANE	0.9	0.0	0.3	0.62	0.00	0.55	11	0	4	7	0	2
23MHC6	0.2	0.0	0.1	0.14	0.00	0.18	2	0	1	1	0	1
ETCYHEXANE	0.4	0.0	0.1	0.28	0.00	0.18	5	0	1	3	0	1
ET BENZENE	1.8	0.1	0.6	1.24	0.69	1.10	20	2	7	13	1	4
M+PXYLENE	7.2	0.4	2.4	4.95	2.76	4.41	81	6	28	50	4	17
2+4MC8	1.0	0.0	0.4	0.69	0.00	0.74	12	0	5	7	0	3
O XYLENE	3.0	0.1	0.9	2.06	0.69	1.65	34	2	10	21	1	6
N NONANE	0.8	0.0	0.3	0.55	0.00	0.55	10	0	4	6	0	2
IPRBENZENE	0.5	0.0	0.2	0.34	0.00	0.37	6	0	2	4	0	1
NPRBENZENE	0.3	0.0	0.1	0.21	0.00	0.18	3	0	1	2	0	1
1M3ETBENZ	2.2	0.0	0.6	1.51	0.00	1.10	25	0	7	15	0	4
135MEBENZ	1.0	0.0	0.3	0.69	0.00	0.55	11	0	3	7	0	2
1M2ETBENZ	0.8	0.0	0.3	0.55	0.00	0.55	9	0	3	6	0	2
124MBENZ	2.7	0.0	0.6	1.86	0.00	1.10	31	0	7	19	0	4
SBUBENZENE	0.2	0.0	0.0	0.14	0.00	0.00	2	0	0	1	0	0
N DECANE	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.6	0.0	0.2	0.41	0.00	0.37	7	0	2	4	0	1
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
IN3PRBENZ	0.2	0.0	0.0	0.14	0.00	0.00	2	0	0	1	0	0
UNKNOWNS	7.9	0.7	2.8	5.43	4.83	5.15	90	11	33	56	7	20

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100701
DATE RUN: 11 22 78
CAR: 1976 VW RABBIT CAL FU-INJ VIN: 1763344616 DRIVEN: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 70

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	122.1	17.0	62.2
GC PPMC	111.0	16.1	50.9

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	11.5	5.0	7.3	10.36	31.06	14.34	170	92	117	106	57	73
SATURATES	41.1	4.8	20.3	37.03	29.81	39.88	545	79	291	339	49	181
OLEFINS	21.1	2.0	9.2	19.01	12.42	18.07	273	32	129	170	20	80
ACETYLENE	4.7	0.0	0.0	4.23	0.00	0.00	56	0	0	35	0	0
NAPTHENES	2.1	0.1	0.6	1.89	0.62	1.18	27	2	8	17	1	5
AROMATICS	25.0	3.6	11.0	22.52	22.36	21.61	304	54	145	189	34	90
BENZENE	4.3	0.9	2.5	3.87	5.59	4.91	52	13	33	32	8	20
TOLUENE	7.7	1.3	3.5	6.94	8.07	6.88	94	20	46	58	12	29
C8+AROM	13.0	1.4	5.0	11.71	8.70	9.82	161	21	67	100	13	42
UNKNOWN	5.5	0.6	2.5	0.00	0.00	0.00	68	9	34	42	6	21
INDIVIDUAL COMPONENTS												
METHANE	11.5	5.0	7.3	10.36	31.06	14.34	170	92	117	106	57	73
ETHYLENE	8.6	1.3	4.3	7.75	8.07	8.45	111	21	60	69	13	37
ETHANE	2.0	0.8	1.6	1.80	4.97	3.14	28	14	24	17	9	15
ACETYLENE	4.7	0.0	0.0	4.23	0.00	0.00	56	0	0	35	0	0
C3 + C3=	5.5	0.6	2.7	4.95	3.73	5.30	71	10	38	44	6	24
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.5	0.1	0.2	0.45	0.62	0.39	7	2	3	4	1	2
B1 + IB	2.6	0.0	1.2	2.34	0.00	2.36	34	0	17	21	0	10
NC4 +B=1=3	4.2	0.8	2.4	3.78	4.97	4.72	56	13	35	35	8	22
TBUTENE-2	0.6	0.1	0.3	0.54	0.62	0.59	8	2	4	5	1	3
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.5	0.0	0.2	0.45	0.00	0.39	6	0	3	4	0	2
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	3.8	0.4	2.0	3.42	2.48	3.93	51	7	29	31	4	18
PLNTENE-1	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.2	0.0	0.0	0.18	0.00	0.00	3	0	0	2	0	0
NPENTANE	0.8	0.1	0.5	0.72	0.62	0.98	11	2	7	7	1	4
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100701
DATE RUN: 11 22 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	0.5	0.0	0.1	0.45	0.00	0.20	6	0	1	4	0	1
CISPENT-2	0.2	0.0	0.0	0.18	0.00	0.00	3	0	0	2	0	0
2MBUT-2	0.9	0.0	0.3	0.81	0.00	0.59	12	0	4	7	0	3
22MBUTANE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
CYPENTENE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
23MBUTANE	0.8	0.1	0.3	0.72	0.62	0.59	11	2	4	7	1	3
2MPENTANE	2.1	0.2	1.0	1.89	1.24	1.96	28	3	14	17	2	9
3MPENTANE	1.1	0.1	0.5	0.99	0.62	0.98	15	2	7	9	1	4
HEXENE-1	0.3	0.0	0.0	0.27	0.00	0.00	4	0	0	2	0	0
N HEXANE	0.6	0.1	0.3	0.54	0.62	0.59	8	2	4	5	1	3
TC6=3,=2	0.7	0.0	0.1	0.63	0.00	0.20	9	0	1	6	0	1
CC6=3	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	1.1	0.1	0.4	0.99	0.62	0.79	14	2	6	9	1	3
24MPENTANE	1.8	0.1	0.8	1.62	0.62	1.57	24	2	11	15	1	7
BENZENE	4.3	0.9	2.5	3.87	5.59	4.91	52	13	33	32	8	20
CYHEXANE	0.3	0.0	0.0	0.27	0.00	0.00	4	0	0	2	0	0
2MC6+23MC5	3.8	0.3	1.6	3.42	1.86	3.14	50	5	23	31	3	14
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.2	0.1	0.5	1.08	0.62	0.98	16	2	7	10	1	4
224MPENTAN	7.7	0.7	3.6	6.94	4.35	7.07	101	11	51	63	7	32
NHEPTANE	1.0	0.1	0.4	0.90	0.62	0.79	13	2	6	8	1	4
MCYHEXANE	0.4	0.0	0.1	0.36	0.00	0.20	5	0	1	3	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.7	0.1	0.8	1.53	0.62	1.57	22	2	11	14	1	7
234MC5	1.8	0.1	0.8	1.62	0.62	1.57	24	2	11	15	1	7
TOLUENE	7.7	1.3	3.5	6.94	8.07	6.88	94	20	46	58	12	29
23MC6+4MC7	1.0	0.1	0.5	0.90	0.62	0.98	13	2	7	8	1	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100701
DATE RUN: 11 22 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.0	0.1	0.5	0.90	0.62	0.98	13	2	7	8	1	4
3MHEPTANE	0.9	0.1	0.5	0.81	0.62	0.98	12	2	7	7	1	4
255MC6	1.1	0.1	0.5	0.99	0.62	0.98	14	2	7	9	1	4
N OCTANE	0.5	0.0	0.2	0.45	0.00	0.39	7	0	3	4	0	2
223MC6	0.1	0.0	0.1	0.09	0.00	0.20	1	0	1	1	0	1
ETCYHEXANE	0.2	0.0	0.1	0.18	0.00	0.20	3	0	1	2	0	1
ET BENZENE	1.2	0.1	0.5	1.08	0.62	0.98	15	2	7	9	1	4
M+PXYLENE	4.6	0.7	1.8	4.14	4.35	3.54	56	11	24	35	7	15
2+4MC8	0.7	0.1	0.3	0.63	0.62	0.59	9	2	4	6	1	3
O XYLENE	2.0	0.2	0.7	1.80	1.24	1.38	25	3	9	15	2	6
N NONANE	0.7	0.1	0.3	0.63	0.62	0.59	9	2	4	6	1	3
IPRBENZENE	0.4	0.0	0.1	0.36	0.00	0.20	5	0	1	3	0	1
NPRBENZENE	0.2	0.0	0.1	0.18	0.00	0.20	2	0	1	2	0	1
1M3ETBENZ	1.3	0.1	0.5	1.17	0.62	0.98	16	2	7	10	1	4
135MEBENZ	0.6	0.1	0.2	0.54	0.62	0.39	7	2	3	5	1	2
1M2ETBENZ	0.6	0.1	0.3	0.54	0.62	0.59	7	2	4	5	1	2
124MBENZ	1.5	0.1	0.5	1.35	0.62	0.98	18	2	7	11	1	4
SBUBENZENE	0.1	0.0	0.1	0.09	0.00	0.20	1	0	1	1	0	1
N DECANE	0.1	0.0	0.1	0.09	0.00	0.20	1	0	1	1	0	1
123MBENZ	0.3	0.0	0.1	0.27	0.00	0.20	4	0	1	2	0	1
INDANE	0.0	0.0	0.1	0.00	0.00	0.20	0	0	1	0	0	1
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
UNKNOWNS	5.5	0.6	2.5	4.95	3.73	4.91	68	9	34	42	6	21

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100702
DATE RUN: 12 06 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FLDERAL TEST PROCEDURE

TEST TEMPERATURE = 70

HYDROCARBON CONCENTRATION BAG1 BAG2 BAG3
FID PPMC 130.8 19.3 64.8
GC PPMC 121.1 16.8 55.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
				MAJOR COMPONENTS								
METHANE	12.4	5.2	7.8	10.24	30.95	14.10	174	107	117	108	66	73
SATURATES	41.7	5.7	21.0	34.43	33.93	37.97	524	105	282	326	65	175
OLEFINS	22.8	1.9	7.6	18.83	11.31	13.74	280	34	100	174	21	62
ACETYLENE	4.5	0.0	0.0	3.72	0.00	0.00	51	0	0	32	0	0
NAPTHENES	1.6	0.1	0.6	1.32	0.60	1.08	20	2	8	12	1	5
AROMATICS	31.7	3.8	14.6	26.18	22.62	26.40	365	64	186	227	40	112
BENZENE	5.3	1.0	3.0	4.38	5.95	5.42	60	17	37	38	10	23
TOLUENE	9.8	1.3	4.5	8.09	7.74	8.14	113	22	55	70	14	34
C8+AROM	16.6	1.5	7.1	13.71	8.93	12.84	195	26	89	121	16	55
UNKNOWN	6.4	0.1	3.7	0.00	0.00	0.00	75	2	46	47	1	29
				INDIVIDUAL COMPONENTS								
METHANE	12.4	5.2	7.8	10.24	30.95	14.10	174	107	117	108	66	73
ETHYLENE	10.0	1.3	5.1	8.26	7.74	9.22	123	23	67	76	14	42
ETHANE	2.2	0.8	1.7	1.82	4.76	3.07	29	15	24	18	10	15
ACETYLENE	4.5	0.0	0.0	3.72	0.00	0.00	51	0	0	32	0	0
C3 + C3=	6.1	0.6	0.5	5.04	3.57	0.90	75	11	7	47	7	4
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.5	0.1	0.1	0.41	0.60	0.18	6	2	1	4	1	1
B1 + 1B	2.7	0.0	1.0	2.23	0.00	1.81	33	0	13	21	0	8
NC4 +B=1=3	4.3	0.9	2.8	3.55	5.36	5.06	55	17	38	34	10	24
TBUTENE-2	0.6	0.0	0.3	0.50	0.00	0.54	7	0	4	5	0	2
22NPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.5	0.0	0.2	0.41	0.00	0.36	6	0	3	4	0	2
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	3.3	0.5	1.9	2.73	2.98	3.44	42	9	26	26	6	16
PENTENE-1	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.2	0.0	0.0	0.17	0.00	0.00	2	0	0	2	0	0
NPENTANE	0.7	0.1	0.5	0.58	0.60	0.90	9	2	7	5	1	4
2MB=1=3	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100702
DATE RUN: 12 06 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.4	0.0	0.1	0.33	0.00	0.18	5	0	1	3	0	1
CISPENT-2	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.8	0.0	0.4	0.66	0.00	0.72	10	0	5	6	0	3
22MBUTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTENE	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
23MBUTANE	0.9	0.2	0.4	0.74	1.19	0.72	11	4	5	7	2	3
2MPENTANE	1.8	0.2	0.6	1.49	1.19	1.08	23	4	8	14	2	5
3MPENTANE	1.0	0.1	0.5	0.83	0.60	0.90	13	2	7	8	1	4
HEXENE-1	0.2	0.0	0.0	0.17	0.00	0.00	2	0	0	2	0	0
N HEXANE	0.6	0.1	0.3	0.50	0.60	0.54	8	2	4	5	1	3
TC6=3,=2	0.5	0.0	0.0	0.41	0.00	0.00	6	0	0	4	0	0
CC6=3	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
MCYP4JM2C5	0.9	0.1	0.4	0.74	0.60	0.72	11	2	5	7	1	3
24MPENTANE	1.7	0.2	0.8	1.40	1.19	1.45	21	4	11	13	2	7
BENZENE	5.3	1.0	3.0	4.38	5.95	5.42	60	17	37	38	10	23
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	3.8	0.4	1.7	3.14	2.38	3.07	48	7	23	30	5	14
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.3	0.1	0.5	1.07	0.60	0.90	16	2	7	10	1	4
224MPENTAN	7.8	0.9	3.6	6.44	5.36	6.51	97	16	48	61	10	30
NHEPTANE	1.2	0.1	0.5	0.99	0.60	0.90	15	2	7	9	1	4
MCYHEXANE	0.3	0.0	0.1	0.25	0.00	0.18	4	0	1	2	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.7	0.2	0.8	1.40	1.19	1.45	21	4	11	13	2	7
234MC5	1.8	0.2	0.8	1.49	1.19	1.45	22	4	11	14	2	7
TOLUENE	9.8	1.3	4.5	8.09	7.74	8.14	113	22	55	70	14	34
23MC6+4MC7	1.2	0.1	0.6	0.99	0.60	1.08	15	2	8	9	1	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100702
DATE RUN: 12 06 76
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.2	0.1	0.6	0.99	0.60	1.08	15	2	8	9	1	5
3MHEPTANE	1.1	0.1	0.5	0.91	0.60	0.90	14	2	7	9	1	4
255MC6	1.1	0.1	0.5	0.91	0.60	0.90	14	2	7	9	1	4
N OCTANE	0.6	0.0	0.3	0.50	0.00	0.54	7	0	4	5	0	2
223MC6	0.1	0.0	0.1	0.08	0.00	0.18	1	0	1	1	0	1
ETCYHEXANE	0.3	0.0	0.1	0.25	0.00	0.18	4	0	1	2	0	1
ET BENZENE	1.4	0.1	0.6	1.16	0.60	1.08	16	2	7	10	1	5
M+PXYLENE	5.8	0.7	2.6	4.79	4.17	4.70	67	12	32	42	7	20
2+4MC8	0.9	0.1	0.4	0.74	0.60	0.72	11	2	5	7	1	3
O XYLENE	2.4	0.2	1.0	1.98	1.19	1.81	28	3	12	17	2	8
N NONANE	0.7	0.1	0.4	0.58	0.60	0.72	9	2	5	5	1	3
IPRBENZENE	0.5	0.0	0.2	0.41	0.00	0.36	6	0	2	4	0	2
NPRBENZENE	0.3	0.0	0.1	0.25	0.00	0.18	4	0	1	2	0	1
1M3ETBENZ	1.7	0.1	0.7	1.40	0.60	1.27	20	2	9	12	1	5
135MEBENZ	0.8	0.2	0.3	0.66	1.19	0.54	9	3	4	6	2	2
1M2ETBENZ	0.6	0.2	0.4	0.50	1.19	0.72	7	3	5	4	2	3
124MBENZ	2.1	0.0	0.9	1.73	0.00	1.63	25	0	11	15	0	7
SBUBENZENE	0.2	0.0	0.1	0.17	0.00	0.18	2	0	1	1	0	1
N DECANE	0.2	0.0	0.1	0.17	0.00	0.18	2	0	1	2	0	1
123MBENZ	0.5	0.0	0.2	0.41	0.00	0.36	6	0	2	4	0	2
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13DEBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.2	0.0	0.0	0.17	0.00	0.00	2	0	0	1	0	0
UNKNOWNS	0.4	0.1	3.7	5.28	0.60	6.69	75	2	46	47	1	29

EFFECT OF AMBILNT TEMPERATURE ON VEHICLE EMISSIUNS AND PERFORMANCE FACTORS

TEST NO.: 100801
DATE RUN: 11 28 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVEN: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	111.1	24.7	82.6
GC PPMC	103.9	20.5	68.2

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	10.8	5.4	8.6	10.39	26.34	12.61	152	121	136	94	75	84
SATURATES	37.4	7.0	34.2	36.00	34.15	50.15	470	140	483	292	87	300
OLEFINS	20.7	3.0	7.6	19.92	14.63	11.14	254	59	105	158	37	65
ACETYLENE	3.2	0.0	0.0	3.08	0.00	0.00	36	0	0	23	0	0
NAPTHENES	1.7	0.1	1.1	1.64	0.49	1.61	21	2	15	13	1	9
AROMATICS	24.6	3.9	14.4	23.68	19.02	21.11	284	72	187	176	45	116
BENZENE	4.4	1.3	3.5	4.23	6.34	5.13	50	24	45	31	15	28
TOLUENE	7.6	1.3	4.9	7.31	6.34	7.16	88	24	64	54	15	39
C8+AROM	12.6	1.3	6.0	12.13	6.34	8.80	148	24	79	92	15	49
UNKNOWN	5.5	1.1	2.3	0.00	0.00	0.00	65	21	30	40	13	19
INDIVIDUAL COMPONENTS												
METHANE	10.8	5.4	8.6	10.39	26.34	12.61	152	121	136	94	75	84
ETHYLENE	6.8	2.0	0.1	8.47	9.76	0.15	108	39	1	67	24	1
ETHANE	2.1	0.9	6.8	2.02	4.39	9.97	28	19	101	17	12	63
ACETYLENE	3.2	0.0	0.0	3.08	0.00	0.00	36	0	0	23	0	0
C3 + C3=	5.6	0.9	4.2	5.39	4.39	6.16	69	18	58	43	11	36
C=C=C	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.4	0.1	0.4	0.38	0.49	0.59	5	2	6	3	1	4
B1 + 1B	2.5	0.0	1.4	2.41	0.00	2.05	31	0	19	19	0	12
NC4 +B=1=3	4.2	1.1	3.8	4.04	5.37	5.57	53	22	54	33	14	34
TBUTENE-2	0.6	0.0	0.4	0.58	0.00	0.59	7	0	6	5	0	3
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.5	0.0	0.3	0.48	0.00	0.44	6	0	4	4	0	3
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.1	0.10	0.00	0.15	1	0	1	1	0	1
ISOPENTANE	3.5	0.7	2.9	3.37	3.41	4.25	44	14	41	27	9	26
PENTENE-1	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	0.9	0.2	0.7	0.87	0.98	1.03	11	4	10	7	3	6
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100801
DATE RUN: 11 28 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT-2	0.5	0.0	0.2	0.48	0.00	0.29	6	0	3	4	0	2
CISPENT-2	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.9	0.1	0.6	0.87	0.49	0.88	11	2	8	7	1	5
22MBUTANE	0.0	0.0	0.1	0.00	0.00	0.15	0	0	1	0	0	1
CYPENTENE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.1	0.10	0.00	0.15	1	0	1	1	0	1
23MBUTANE	0.8	0.1	0.5	0.77	0.49	0.73	10	2	7	6	1	4
2MPENTANE	1.8	0.2	1.1	1.73	0.98	1.61	23	4	16	14	2	10
3MPENTANE	1.0	0.2	0.8	0.96	0.98	1.17	13	4	11	8	2	7
HEXENE-1	0.2	0.0	0.1	0.19	0.00	0.15	2	0	1	2	0	1
N HEXANE	0.5	0.1	0.4	0.48	0.49	0.59	6	2	6	4	1	4
TC6=3,=2	0.5	0.0	0.2	0.48	0.00	0.29	6	0	3	4	0	2
CC6=3	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	1.0	0.1	0.6	0.96	0.49	0.88	12	2	8	8	1	5
24MPENTANE	1.7	0.2	1.2	1.64	0.98	1.76	21	4	17	13	2	11
BENZENE	4.4	1.3	3.5	4.23	6.34	5.13	50	24	45	31	15	28
CYHEXANE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MC6+23MC5	3.3	0.5	2.4	3.18	2.44	3.52	41	10	34	26	6	21
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.0	0.2	0.8	0.96	0.98	1.17	13	4	11	8	2	7
224MPENTAN	6.7	1.1	5.2	6.45	5.37	7.62	84	22	73	52	14	45
NHEPTANE	0.9	0.1	0.6	0.87	0.49	0.88	11	2	8	7	1	5
MCYHEXANE	0.3	0.0	0.2	0.29	0.00	0.29	4	0	3	2	0	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.5	0.2	1.1	1.44	0.98	1.61	19	4	15	12	2	10
234MC5	1.5	0.2	1.1	1.44	0.98	1.61	19	4	15	12	2	10
TOLUENE	7.6	1.3	4.9	7.31	6.34	7.18	88	24	64	54	15	39
23MC6+4MC7	1.0	0.2	0.8	0.96	0.98	1.17	13	4	11	8	2	7

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100801
DATE RUN: 11 28 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: SUNNER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
34MHEXANE		1.0	0.2	0.8		0.96	0.98	1.17		13	4	11		8	2	7
3MHEPTANE		0.9	0.1	0.7		0.87	0.49	1.03		11	2	10		7	1	6
255MC6		0.9	0.1	0.7		0.87	0.49	1.03		11	2	10		7	1	6
N OCTANE		0.5	0.1	0.3		0.48	0.49	0.44		6	2	4		4	1	3
223MC6		0.1	0.0	0.1		0.10	0.00	0.15		1	0	1		1	0	1
ETCYHEXANE		0.2	0.0	0.2		0.19	0.00	0.29		2	0	3		2	0	2
ET BENZENE		1.1	0.1	0.6		1.06	0.49	0.88		13	2	8		8	1	5
M+PXYLENE		4.5	0.7	2.5		4.33	3.41	3.67		52	13	33		33	8	20
2+4MC8		0.6	0.1	0.5		0.58	0.49	0.73		7	2	7		5	1	4
O XYLENE		1.8	0.2	0.9		1.73	0.98	1.32		21	4	12		13	2	7
N NONANE		0.5	0.1	0.4		0.48	0.49	0.59		6	2	6		4	1	3
IPRBENZENE		0.3	0.0	0.2		0.29	0.00	0.29		4	0	3		2	0	2
NPRBENZENE		0.2	0.0	0.1		0.19	0.00	0.15		2	0	1		1	0	1
1M3ETBENZ		1.3	0.1	0.5		1.25	0.49	0.73		15	2	7		9	1	4
135MEBENZ		0.6	0.2	0.2		0.58	0.98	0.29		7	4	3		4	2	2
1M2ETBENZ		0.5	0.0	0.4		0.48	0.00	0.59		6	0	5		4	0	3
124MBENZ		1.5	0.0	0.4		1.44	0.00	0.59		18	0	5		11	0	3
SBUBENZENE		0.2	0.0	0.0		0.19	0.00	0.00		2	0	0		1	0	0
N DECANE		0.1	0.0	0.0		0.10	0.00	0.00		1	0	0		1	0	0
123MBENZ		0.4	0.0	0.2		0.38	0.00	0.29		5	0	3		3	0	2
INDANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
1JEBENZENE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
NAUBENZENE		0.1	0.0	0.0		0.10	0.00	0.00		1	0	0		1	0	0
1M3PRBENZ		0.1	0.0	0.0		0.10	0.00	0.00		1	0	0		1	0	0
UNKNOWNS		5.5	1.1	2.3		5.29	5.37	3.37		65	21	30		40	13	19

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100802
DATE RUN: 12 05 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: SUNNER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	127.6	27.0	77.3
GC PPMC	118.7	19.0	71.4

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	11.2	4.6	8.1	9.44	24.21	11.34	157	122	114	98	76	71
SATURATES	43.7	6.4	25.0	36.82	33.68	35.01	549	152	316	341	95	197
OLEFINS	21.2	2.6	13.1	17.86	13.68	18.35	266	60	162	162	38	101
ACETYLENE	4.2	0.0	0.0	3.54	0.00	0.00	48	0	0	30	0	0
NAPTHENES	1.8	0.1	0.9	1.52	0.53	1.26	22	2	11	14	1	7
AROMATICS	30.1	4.4	18.0	25.36	23.16	25.21	347	96	209	216	60	130
BENZENE	4.7	1.2	3.6	3.96	6.32	5.04	54	26	41	33	16	26
TOLUENE	9.3	1.4	5.4	7.83	7.37	7.56	107	31	63	67	19	39
C8+AROM	16.1	1.8	9.0	13.56	9.47	12.61	189	40	106	117	25	66
UNKNOWN	6.5	0.9	6.3	0.00	0.00	0.00	76	20	74	47	12	46
INDIVIDUAL COMPONENTS												
METHANE	11.2	4.6	8.1	9.44	24.21	11.34	157	122	114	98	76	71
ETHYLENE	9.1	1.7	6.6	7.67	8.95	9.24	112	40	82	69	25	51
ETHANE	2.1	0.7	1.8	1.77	3.68	2.52	28	17	24	17	11	15
ACETYLENE	4.2	0.0	0.0	3.54	0.00	0.00	48	0	0	30	0	0
C3 + C3=	5.3	0.7	3.9	4.47	3.68	5.46	65	16	48	40	10	30
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.4	0.0	0.3	0.34	0.00	0.42	5	0	4	3	0	2
B1 + IB	2.5	0.0	1.2	2.11	0.00	1.66	31	0	15	19	0	9
NC4 +B=1=3	4.4	1.0	3.2	3.71	5.26	4.48	56	24	41	35	15	25
TBUTENE-2	0.6	0.0	0.4	0.51	0.00	0.56	7	0	5	5	0	3
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.4	0.0	0.3	0.34	0.00	0.42	5	0	4	3	0	2
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.1	0.08	0.00	0.14	1	0	1	1	0	1
ISOPENTANE	3.6	0.6	2.2	3.03	3.16	3.08	45	14	28	28	9	17
PENTENE-1	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.3	0.0	0.0	0.25	0.00	0.00	4	0	0	2	0	0
NPENTANE	0.8	0.2	0.6	0.67	1.05	0.84	10	5	8	6	3	5
2MB=1=3	0.2	0.0	0.0	0.17	0.00	0.00	2	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100802
DATE RUN: 12 05 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
TPENT-2	0.4	0.0	0.2	0.34	0.00	0.28	5	0	2	3	0	2
CISPENT-2	0.2	0.0	0.0	0.17	0.00	0.00	2	0	0	2	0	0
2MBUT-2	0.9	0.2	0.4	0.76	1.05	0.56	11	5	5	7	3	3
22MBUTANE	0.3	0.0	0.0	0.25	0.00	0.00	4	0	0	2	0	0
CYPENTENE	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.2	0.0	0.0	0.17	0.00	0.00	2	0	0	2	0	0
23MBUTANE	0.9	0.1	0.4	0.76	0.53	0.56	11	2	5	7	1	3
2MPENTANE	1.9	0.2	0.8	1.60	1.05	1.12	24	5	10	15	3	6
3MPENTANE	1.1	0.2	0.6	0.93	1.05	0.84	14	5	8	9	3	5
HEXENE-1	0.3	0.0	0.0	0.25	0.00	0.00	4	0	0	2	0	0
N HEXANE	0.6	0.1	0.4	0.51	0.53	0.56	8	2	5	5	1	3
TC6=3,=2	0.5	0.0	0.0	0.42	0.00	0.00	6	0	0	4	0	0
CC6=3	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
MCYP43M2C5	0.9	0.1	0.5	0.76	0.53	0.70	11	2	6	7	1	4
24MPENTANE	1.8	0.2	1.0	1.52	1.05	1.40	23	5	13	14	3	8
BENZENE	4.7	1.2	3.6	3.96	6.32	5.04	54	26	41	33	16	26
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	4.0	0.5	2.1	3.37	2.63	2.94	50	12	26	31	7	16
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.3	0.2	0.7	1.10	1.05	0.98	16	5	9	10	3	5
224MPENTAN	8.1	1.0	4.4	6.82	5.26	6.16	101	24	55	63	15	34
MHEPTANE	1.2	0.1	0.6	1.01	0.53	0.84	15	2	8	9	1	5
MCYHEXANE	0.4	0.0	0.2	0.34	0.00	0.28	5	0	2	3	0	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.8	0.2	0.9	1.52	1.05	1.26	22	5	11	14	3	7
234MC5	1.9	0.2	0.9	1.60	1.05	1.26	24	5	11	15	3	7
TOLUENE	9.3	1.4	5.4	7.83	7.37	7.56	107	31	63	67	19	39
23MC6+4MC7	1.2	0.2	0.7	1.01	1.05	0.98	15	5	9	9	3	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100802
DATE RUN: 12 05 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.3	0.2	0.7	1.10	1.05	0.98	16	5	9	10	3	5
3MHEPTANE	1.2	0.1	0.6	1.01	0.53	0.84	15	2	8	9	1	5
25MHC6	1.2	0.1	0.6	1.01	0.53	0.84	15	2	8	9	1	5
N OCTANE	0.7	0.1	0.3	0.59	0.53	0.42	9	2	4	5	1	2
223MHC6	0.1	0.0	0.1	0.08	0.00	0.14	1	0	1	1	0	1
ETCYHEXANE	0.3	0.0	0.2	0.25	0.00	0.28	4	0	2	2	0	2
ET BENZENE	1.4	0.2	0.8	1.18	1.05	1.12	16	4	9	10	3	6
M+PXYLENE	5.6	0.8	3.2	4.72	4.21	4.48	65	18	37	40	11	23
244MC8	0.9	0.1	0.5	0.76	0.53	0.70	11	2	6	7	1	4
O XYLENE	2.3	0.2	1.2	1.94	1.05	1.68	27	4	14	17	3	9
N NONANE	0.7	0.1	0.5	0.59	0.53	0.70	9	2	6	5	1	4
IPRBENZENE	0.5	0.0	0.3	0.42	0.00	0.42	6	0	4	4	0	2
NPRBENZENE	0.3	0.0	0.1	0.25	0.00	0.14	4	0	1	2	0	1
1M3ETBENZ	1.6	0.2	0.9	1.35	1.05	1.26	19	4	11	12	3	7
135MEBENZ	0.7	0.2	0.4	0.59	1.05	0.56	8	4	5	5	3	3
1M2ETBENZ	0.7	0.1	0.4	0.59	0.53	0.56	8	2	5	5	1	3
124MBENZ	2.0	0.1	1.3	1.68	0.53	1.82	23	2	15	15	1	10
SBUBENZENE	0.2	0.0	0.1	0.17	0.00	0.14	2	0	1	1	0	1
N DECANE	0.2	0.0	0.1	0.17	0.00	0.14	2	0	1	2	0	1
123MBENZ	0.5	0.0	0.3	0.42	0.00	0.42	6	0	4	4	0	2
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13DEBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NAUBENZENE	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.2	0.0	0.0	0.17	0.00	0.00	2	0	0	1	0	0
UNKNOWNS	6.5	0.9	6.3	5.48	4.74	8.82	76	20	74	47	12	46

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100821
DATE RUN: 12 20 78
CAR: 1978 VW RABBIT CAL FU_INJ VIN: 1783344616 DRIVER: WAND FUEL: SUMMER

TEST TEMPERATURE = 80

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	117.6	36.8	96.8
GC PPMC	112.7	31.2	75.2

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	11.0	5.8	8.4	9.76	18.59	11.17	149	131	139	92	81	86
SATURATES	39.3	11.3	28.3	34.87	36.22	37.63	475	228	419	295	142	260
OLEFINS	22.6	5.3	16.5	20.05	16.99	21.94	267	104	239	166	65	148
ACETYLENE	5.5	0.0	0.0	4.88	0.00	0.00	60	0	0	37	0	0
NAPTHENES	1.4	0.4	1.1	1.24	1.28	1.46	17	8	16	10	5	10
AROMATICS	25.9	7.1	17.1	22.98	22.76	22.74	287	131	232	179	82	144
BENZENE	4.3	1.9	3.7	3.82	6.09	4.92	47	35	50	29	22	31
TOLUENE	7.6	2.0	5.2	6.74	6.41	6.91	84	37	71	52	23	44
C8+AROM	14.0	3.2	8.2	12.42	10.26	10.90	158	60	113	98	37	70
UNKNOWN	7.0	1.3	3.8	0.00	0.00	0.00	79	25	53	49	15	33
INDIVIDUAL COMPONENTS												
METHANE	11.0	5.8	8.4	9.76	18.59	11.17	149	131	139	92	81	86
ETHYLENE	10.6	3.4	7.7	9.41	10.90	10.24	125	67	111	78	42	69
ETHANE	3.7	1.3	2.0	3.28	4.17	2.66	47	27	31	29	17	19
ACETYLENE	5.5	0.0	0.0	4.88	0.00	0.00	60	0	0	37	0	0
C3 + C3=	5.6	1.6	5.0	4.97	5.13	6.65	66	32	72	41	20	45
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.6	0.1	0.6	0.53	0.32	0.80	7	2	9	5	1	6
B1 + IB	2.4	0.0	1.4	2.13	0.00	1.86	28	0	20	18	0	13
NC4 +B=1=3	4.8	1.7	3.9	4.26	5.45	5.19	59	35	58	36	22	36
TBUTENE-2	0.7	0.1	0.4	0.62	0.32	0.53	8	2	6	5	1	4
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.7	0.1	0.5	0.62	0.32	0.66	8	2	7	5	1	4
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.1	0.18	0.00	0.13	2	0	1	1	0	1
ISOPENTANE	3.7	1.0	2.5	3.28	3.21	3.32	45	20	37	28	13	23
PENTENE-1	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	1.1	0.3	0.8	0.98	0.96	1.06	13	6	12	8	4	7
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100821
DATE RUN: 12 20 78
CAR: 1978 VW RABBIT CAL FU_INJ VIN: 1783344616 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.5	0.0	0.2	0.44	0.00	0.27	6	0	3	4	0	2
CISPENT-2	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.9	0.1	0.5	0.80	0.32	0.66	11	2	7	7	1	4
22MBUTANE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
CYPENTENE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.1	0.09	0.00	0.13	1	0	1	1	0	1
23MBUTANE	0.7	0.2	0.5	0.62	0.64	0.66	8	4	7	5	3	5
2MPENTANE	1.4	0.4	1.1	1.24	1.28	1.46	17	8	16	11	5	10
3MPENTANE	0.9	0.3	0.8	0.80	0.96	1.06	11	6	12	7	4	7
HEXENE-1	0.1	0.0	0.2	0.09	0.00	0.27	1	0	3	1	0	2
N HEXANE	0.5	0.1	0.6	0.44	0.32	0.80	6	2	9	4	1	6
TC6=3,=2	0.5	0.0	0.5	0.44	0.00	0.66	6	0	7	4	0	4
CC6=3	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	0.8	0.2	0.7	0.71	0.64	0.93	9	4	10	6	2	6
24MPENTANE	1.5	0.4	1.1	1.33	1.28	1.46	18	8	16	11	5	10
BENZENE	4.3	1.9	3.7	3.82	6.09	4.92	47	35	50	29	22	31
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	3.3	0.9	2.2	2.93	2.88	2.93	40	18	32	25	11	20
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.0	0.3	0.7	0.89	0.96	0.93	12	6	10	7	4	6
224MPENTAN	6.5	1.8	4.5	5.77	5.77	5.98	78	36	66	49	22	41
NHEPTANE	0.9	0.2	0.5	0.80	0.64	0.66	11	4	7	7	2	5
MCYHEXANE	0.3	0.1	0.2	0.27	0.32	0.27	4	2	3	2	1	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.4	0.4	1.0	1.24	1.28	1.33	17	8	15	10	5	9
234MC5	1.5	0.4	1.1	1.33	1.28	1.46	18	8	16	11	5	10
TOLUENE	7.6	2.0	5.2	6.74	6.41	6.91	84	37	71	52	23	44
23MC6+4MC7	1.0	0.4	0.9	0.89	1.28	1.20	12	8	13	7	5	8

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100821
DATE RUN: 12 20 78
CAR: 1978 VW RABBIT CAL FU_INJ VIN: 1783344616 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.0	0.3	0.8	0.89	0.96	1.06	12	6	12	7	4	7
3MHEPTANE	0.9	0.2	0.7	0.80	0.64	0.93	11	4	10	7	2	6
255MC6	0.9	0.2	0.7	0.80	0.64	0.93	11	4	10	7	2	6
N OCTANE	0.5	0.1	0.3	0.44	0.32	0.40	6	2	4	4	1	3
223MC6	0.1	0.0	0.1	0.09	0.00	0.13	1	0	1	1	0	1
ETCYHEXANE	0.2	0.1	0.1	0.18	0.32	0.13	2	2	1	1	1	1
ET BENZENE	1.2	0.3	0.8	1.06	0.96	1.06	13	6	11	8	3	7
M+PXYLENE	4.8	1.3	2.9	4.26	4.17	3.86	54	24	40	33	15	25
2+4MC8	0.7	0.1	0.5	0.62	0.32	0.66	8	2	7	5	1	5
O XYLENE	1.9	0.4	1.1	1.69	1.28	1.46	21	7	15	13	5	9
N NONANE	0.6	0.2	0.4	0.53	0.64	0.53	7	4	6	4	2	4
IPRBENZENE	0.4	0.1	0.2	0.35	0.32	0.27	4	2	3	3	1	2
NPRBENZENE	0.2	0.0	0.1	0.18	0.00	0.13	2	0	1	1	0	1
1M3ETBENZ	1.5	0.3	0.8	1.33	0.96	1.06	17	6	11	10	3	7
135MEBENZ	0.7	0.4	0.4	0.62	1.28	0.53	8	8	6	5	5	3
1M2ETBENZ	0.6	0.1	0.5	0.53	0.32	0.66	7	2	7	4	1	4
124MBENZ	1.8	0.1	0.9	1.60	0.32	1.20	20	2	12	13	1	8
SBUBENZENE	0.4	0.0	0.3	0.35	0.00	0.40	5	0	4	3	0	3
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.5	0.2	0.2	0.44	0.64	0.27	6	4	3	3	2	2
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1M3PRBENZ	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
UNKNOWNS	7.0	1.3	3.8	6.21	4.17	5.05	79	25	53	49	15	33

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100901
DATE RUN: 11 29 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVEN: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	105.0	32.1	87.9
GC PPMC	97.8	29.0	67.6

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	11.3	7.5	8.6	11.55	25.86	12.72	156	150	142	97	94	88
SATURATES	35.2	9.5	26.2	35.99	32.76	38.76	434	171	388	270	106	241
OLEFINS	20.9	4.8	13.8	21.37	16.55	20.41	252	84	200	157	52	124
ACETYLENE	3.3	0.0	0.0	3.37	0.00	0.00	37	0	0	23	0	0
NAPTHENES	1.4	0.3	0.9	1.43	1.03	1.33	17	5	13	10	3	8
AROMATICS	21.9	6.5	14.9	22.39	22.41	22.04	248	107	203	154	67	126
BENZENE	4.1	1.7	3.3	4.19	5.86	4.88	46	28	44	28	17	28
TOLUENE	6.9	2.1	4.9	7.06	7.24	7.25	78	35	67	49	22	41
C8+AROM	10.9	2.7	6.7	11.15	9.31	9.91	125	45	93	78	28	58
UNKNOWN	3.8	0.4	3.2	0.00	0.00	0.00	44	7	44	27	4	28
INDIVIDUAL COMPONENTS												
METHANE	11.3	7.5	8.6	11.55	25.86	12.72	156	150	142	97	94	88
ETHYLENE	9.0	3.0	6.4	9.20	10.34	9.47	108	53	3	67	33	58
ETHANE	3.1	1.1	1.7	3.17	3.79	2.51	40	21	26	25	13	16
ACETYLENE	3.3	0.0	0.0	3.37	0.00	0.00	37	0	0	23	0	0
C3 + C3=	5.6	1.4	4.2	5.73	4.83	6.21	67	25	61	42	15	38
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.5	0.1	0.4	0.51	0.34	0.59	6	2	6	4	1	4
B1 + IB	2.6	0.0	1.4	2.66	0.00	2.07	31	0	20	19	0	13
NC4 +B=1=3	4.1	1.8	3.5	4.19	6.21	5.18	51	33	52	32	20	33
TBUTENE-2	0.6	0.1	0.4	0.61	0.34	0.59	7	2	6	4	1	4
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.5	0.1	0.3	0.51	0.34	0.44	6	2	4	4	1	3
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.1	0.10	0.00	0.15	1	0	1	1	0	1
ISOPENTANE	3.1	0.9	2.5	3.17	3.10	3.70	38	16	37	24	10	23
PENTENE-1	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.2	0.0	0.0	0.20	0.00	0.00	2	0	0	1	0	0
NPENTANE	0.7	0.2	0.7	0.72	0.69	1.04	9	4	10	5	2	6
2MB=1=3	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100901
DATE RUN: 11 29 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 17H3344616 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.4	0.1	0.2	0.41	0.34	0.30	5	2	3	3	1	2
CISPENT-2	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.7	0.1	0.6	0.72	0.34	0.89	8	2	9	5	1	5
22MBUTANE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
CYPENTENE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
23MBUTANE	0.7	0.1	0.5	0.72	0.34	0.74	9	2	7	5	1	5
2MPENTANE	1.5	0.3	0.9	1.53	1.03	1.33	19	5	13	12	3	8
3MPENTANE	0.8	0.2	0.7	0.82	0.69	1.04	10	4	10	6	2	6
HEXENE-1	0.2	0.0	0.0	0.20	0.00	0.00	2	0	0	1	0	0
N HEXANE	0.5	0.1	0.4	0.51	0.34	0.59	6	2	6	4	1	4
TC6=3,=2	0.5	0.0	0.2	0.51	0.00	0.30	6	0	3	4	0	2
CC6=3	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	0.7	0.2	0.5	0.72	0.69	0.74	8	4	7	5	2	4
24MPENTANE	1.4	0.3	1.0	1.43	1.03	1.48	17	5	15	11	3	9
BENZENE	4.1	1.7	3.3	4.19	5.86	4.88	46	28	44	28	17	28
CYHEXANE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MC6+23MC5	3.0	0.7	2.1	3.07	2.41	3.11	37	13	31	23	8	19
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.0	0.2	0.7	1.02	0.69	1.04	12	4	10	8	2	6
224MPENTAN	6.0	1.4	4.5	6.13	4.83	6.66	74	25	66	46	16	41
NHEPTANE	0.9	0.1	0.5	0.92	0.34	0.74	11	2	7	7	1	5
MCYHEXANE	0.3	0.1	0.2	0.31	0.34	0.30	4	2	3	2	1	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.3	0.3	1.0	1.33	1.03	1.48	16	5	15	10	3	9
234MC5	1.3	0.3	1.0	1.33	1.03	1.48	16	5	15	10	3	9
TOLUENE	6.9	2.1	4.9	7.06	7.24	7.25	78	35	67	49	22	41
23MC6+4MC7	0.9	0.3	0.7	0.92	1.03	1.04	11	5	10	7	3	6

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100901
DATE RUN: 11 29 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	0.9	0.3	0.7	0.92	1.03	1.04	11	5	10	7	3	6
3MHEPTANE	0.8	0.2	0.6	0.82	0.69	0.89	10	4	9	6	2	5
255MC6	0.8	0.2	0.7	0.82	0.69	1.04	10	4	10	6	2	6
N OCTANE	0.4	0.1	0.3	0.41	0.34	0.44	5	2	4	3	1	3
223MC6	0.1	0.0	0.1	0.10	0.00	0.15	1	0	1	1	0	1
ETCYHEXANE	0.2	0.0	0.2	0.20	0.00	0.30	2	0	3	1	0	2
ET BENZENE	1.0	0.2	0.7	1.02	0.69	1.04	11	3	10	7	2	6
M+PXYLENE	4.0	1.2	2.5	4.09	4.14	3.70	46	20	34	28	12	21
2+4MC8	0.6	0.1	0.5	0.61	0.34	0.74	7	2	7	5	1	5
O XYLENE	1.6	0.4	0.9	1.64	1.38	1.33	18	7	12	11	4	8
N NONANE	0.5	0.2	0.4	0.51	0.69	0.59	6	4	6	4	2	4
IPRBENZENE	0.3	0.1	0.2	0.31	0.34	0.30	3	2	3	2	1	2
NPRBENZENE	0.2	0.0	0.1	0.20	0.00	0.15	2	0	1	1	0	1
1M3ETBENZ	1.1	0.2	0.6	1.12	0.69	0.89	13	3	8	8	2	5
135MEBENZ	0.5	0.3	0.3	0.51	1.03	0.44	6	5	4	4	3	3
1M2ETBENZ	0.5	0.1	0.4	0.51	0.34	0.59	6	2	6	4	1	3
124MBENZ	1.2	0.2	0.7	1.23	0.69	1.04	14	3	10	9	2	6
SBUBENZENE	0.2	0.0	0.1	0.20	0.00	0.15	2	0	1	1	0	1
N DECANE	0.2	0.0	0.1	0.20	0.00	0.15	2	0	1	2	0	1
123MBENZ	0.3	0.0	0.2	0.31	0.00	0.30	3	0	3	2	0	2
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1M3PRBENZ	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
UNKNOWNS	3.8	0.4	3.2	3.89	1.38	4.73	44	7	44	27	4	28

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100902
DATE RUN: 12 04 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	125.8	47.0	99.6
GC PPMC	120.9	42.8	85.5

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	11.2	6.0	8.1	9.26	14.02	9.47	157	135	129	97	84	80
SATURATES	40.2	14.2	30.4	33.25	33.18	35.56	503	285	434	313	177	270
OLEFINS	26.2	9.3	19.4	21.67	21.73	22.69	320	183	271	199	113	168
ACETYLENE	2.5	0.0	0.1	2.07	0.00	0.12	28	0	1	18	0	1
NAPTHENES	1.4	0.5	1.1	1.16	1.17	1.29	17	10	15	11	6	10
AROMATICS	33.3	11.0	21.2	27.54	25.70	24.80	382	203	278	238	126	173
BENZENE	5.9	2.7	4.5	4.88	6.31	5.26	67	49	58	42	31	36
TOLUENE	9.9	3.5	6.9	8.19	8.18	8.07	114	65	90	71	40	56
C8+AROM	17.5	4.8	9.8	14.47	11.22	11.46	204	90	131	127	56	81
UNKNOWN	6.1	1.8	5.2	0.00	0.00	0.00	71	34	69	44	21	43
INDIVIDUAL COMPONENTS												
METHANE	11.2	6.0	8.1	9.26	14.02	9.47	157	135	129	97	84	80
ETHYLENE	11.0	4.5	8.6	9.10	10.51	10.06	135	88	120	84	55	75
ETHANE	2.3	1.3	2.0	1.90	3.04	2.34	30	27	30	19	17	19
ACETYLENE	2.5	0.0	0.1	2.07	0.00	0.12	28	0	1	18	0	1
C3 + C3=	7.3	2.8	6.0	6.04	6.54	7.02	89	55	84	55	34	52
C=C=C	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.5	0.1	0.5	0.41	0.23	0.58	6	2	7	4	1	4
B1 + IB	3.5	1.0	2.3	2.89	2.34	2.69	43	20	32	27	12	20
NC4 +B=1=3	4.6	2.0	3.8	3.80	4.67	4.44	58	41	55	36	25	34
TBUTENE-2	0.7	0.3	0.6	0.58	0.70	0.70	9	6	8	5	4	5
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.5	0.2	0.5	0.41	0.47	0.58	6	4	7	4	2	4
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.1	0.08	0.00	0.12	1	0	1	1	0	1
ISOPENTANE	3.5	1.3	2.8	2.89	3.04	3.27	44	26	40	27	16	25
PENTENE-1	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.3	0.0	0.0	0.25	0.00	0.00	4	0	0	2	0	0
NPENTANE	0.7	0.4	0.8	0.58	0.93	0.94	9	8	11	5	5	7
2MB=1=3	0.2	0.0	0.0	0.17	0.00	0.00	2	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100902
DATE RUN: 12 04 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.4	0.2	0.3	0.33	0.47	0.35	5	4	4	3	2	3
CISPENT-2	0.1	0.0	0.1	0.08	0.00	0.12	1	0	1	1	0	1
2MBUT-2	0.8	0.3	0.6	0.66	0.70	0.70	10	6	8	6	4	5
22MBUTANE	0.1	0.1	0.0	0.08	0.23	0.00	1	2	0	1	1	0
CYPENTENE	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.1	0.0	0.1	0.08	0.00	0.12	1	0	1	1	0	1
23MBUTANE	0.7	0.3	0.5	0.58	0.70	0.58	9	6	7	5	4	4
2MPENTANE	1.7	0.7	1.4	1.41	1.64	1.64	21	14	20	13	9	12
3MPENTANE	0.9	0.3	0.7	0.74	0.70	0.82	11	6	10	7	4	6
HEXENE-1	0.2	0.0	0.0	0.17	0.00	0.00	2	0	0	2	0	0
N HEXANE	0.6	0.2	0.4	0.50	0.47	0.47	8	4	6	5	2	4
TC6=3,=2	0.5	0.0	0.3	0.41	0.00	0.35	6	0	4	4	0	3
CC6=3	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.1	0.0	0.0	0.08	0.00	0.00	1	0	0	1	0	0
MCYP43M2C5	0.8	0.3	0.6	0.66	0.70	0.70	10	6	8	6	4	5
24MPENTANE	1.6	0.5	1.2	1.32	1.17	1.40	20	10	17	12	6	11
BENZENE	5.9	2.7	4.5	4.88	6.31	5.26	67	49	58	42	31	36
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	3.6	1.0	2.5	2.98	2.34	2.92	45	20	36	28	12	22
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.2	0.3	0.9	0.99	0.70	1.05	15	6	13	9	4	8
224MPENTAN	7.3	2.3	5.3	6.04	5.37	6.20	91	46	75	56	29	47
NHEPTANE	1.1	0.3	0.7	0.91	0.70	0.82	14	6	10	9	4	6
MCYHEXANE	0.3	0.1	0.2	0.25	0.23	0.23	4	2	3	2	1	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.6	0.5	1.1	1.32	1.17	1.29	20	10	16	12	6	10
234MC5	1.7	0.5	1.1	1.41	1.17	1.29	21	10	16	13	6	10
TOLUENE	9.9	3.5	6.9	8.19	8.18	8.07	114	65	90	71	40	56
23MC6+4MC7	1.0	0.4	0.8	0.83	0.93	0.94	12	8	11	8	5	7

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 100902
DATE RUN: 12 04 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.2	0.4	0.8	0.99	0.93	0.94	15	8	11	9	5	7
3MHEPTANE	1.0	0.3	0.7	0.83	0.70	0.82	12	6	10	8	4	6
255MC6	1.1	0.3	0.8	0.91	0.70	0.94	14	6	11	8	4	7
N OCTANE	0.6	0.2	0.4	0.50	0.47	0.47	7	4	6	5	2	4
223MC6	0.1	0.0	0.1	0.08	0.00	0.12	1	0	1	1	0	1
ETCYHEXANE	0.2	0.1	0.2	0.17	0.23	0.23	2	2	3	2	1	2
ET BENZENE	1.5	0.5	1.0	1.24	1.17	1.17	17	9	13	11	6	8
M+PXYLENE	6.0	1.9	3.9	4.96	4.44	4.56	69	35	52	43	22	32
2+4MC8	0.8	0.3	0.6	0.66	0.70	0.70	10	6	9	6	4	5
O XYLENE	2.7	0.7	1.5	2.23	1.64	1.75	31	13	20	19	8	12
N NONANE	0.6	0.2	0.4	0.50	0.47	0.47	7	4	6	5	2	4
IPRBENZENE	0.4	0.1	0.2	0.33	0.23	0.23	5	2	3	3	1	2
NPRBENZENE	0.3	0.1	0.2	0.25	0.23	0.23	3	2	3	2	1	2
1M3ETBENZ	1.9	0.5	0.1	1.57	1.17	0.12	22	9	1	14	6	1
135MEBENZ	0.8	0.2	0.5	0.66	0.47	0.58	9	4	7	6	2	4
1M2ETBENZ	0.6	0.2	0.4	0.50	0.47	0.47	7	4	5	4	2	3
124MBENZ	2.3	0.5	1.3	1.90	1.17	1.52	27	9	17	17	6	11
SBUBENZENE	0.2	0.0	0.0	0.17	0.00	0.00	2	0	0	1	0	0
N DECANE	0.1	0.0	0.1	0.08	0.00	0.12	1	0	1	1	0	1
123MBENZ	0.5	0.1	0.3	0.41	0.23	0.35	6	2	4	4	1	2
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.1	0.08	0.00	0.12	1	0	1	1	0	1
1M3PRBENZ	0.2	0.0	0.3	0.17	0.00	0.35	2	0	4	1	0	2
UNKNOWNS	6.1	1.8	5.2	5.05	4.21	6.08	71	34	69	44	21	43

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 101101
DATE RUN: 11 30 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION BAG1 BAG2 BAG3
FID PPMC 152.3 73.5 157.2
GC PPMC 146.6 62.7 138.6

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	12.3	6.4	11.5	8.39	10.21	8.30	169	149	174	105	93	108
SATURATES	49.2	19.7	49.1	33.56	31.42	35.43	607	411	666	377	256	414
OLEFINS	35.8	20.4	35.0	24.42	32.54	25.25	431	416	464	268	259	288
ACETYLENE	2.0	0.0	0.9	1.36	0.00	0.65	22	0	11	14	0	7
NAPTHENES	2.3	0.5	2.0	1.57	0.80	1.44	28	10	27	17	6	16
AROMATICS	36.4	13.4	31.7	24.83	21.37	22.87	412	257	395	256	160	245
BENZENE	5.8	2.8	5.5	3.96	4.47	3.97	65	53	68	40	33	42
TOLUENE	11.1	4.2	10.1	7.57	6.70	7.29	126	80	126	78	50	78
C8+AROM	19.5	6.4	16.1	13.30	10.21	11.62	224	125	204	139	77	127
UNKNOWN	8.6	2.3	8.4	0.00	0.00	0.00	99	45	107	62	28	66
INDIVIDUAL COMPONENTS												
METHANE	12.3	6.4	11.5	8.39	10.21	8.30	169	149	174	105	93	108
ETHYLENE	15.3	7.2	16.1	10.44	11.48	11.62	184	147	213	114	91	133
ETHANE	2.8	1.5	2.4	1.91	2.39	1.73	36	33	34	22	20	21
ACETYLENE	2.0	0.0	0.9	1.36	0.00	0.65	22	0	11	14	0	7
C3 + C3=	10.1	7.8	10.0	6.89	12.44	7.22	122	159	133	76	99	82
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.8	1.7	0.8	0.55	2.71	0.58	10	36	11	6	22	7
B1 + 1B	4.6	1.9	3.6	3.14	3.03	2.60	55	39	48	34	24	30
NC4 +B=1=3	6.4	3.3	7.3	4.37	5.26	5.27	80	70	100	50	43	62
TBUTENE-2	1.1	0.9	1.1	0.75	1.44	0.79	13	18	15	8	11	9
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.9	1.1	1.1	0.61	1.75	0.79	11	22	15	7	14	9
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.3	0.2	0.14	0.48	0.14	2	6	3	1	4	2
ISOPENTANE	4.4	1.7	4.7	3.00	2.71	3.39	55	36	64	34	22	40
PENTENE-1	0.1	0.0	0.1	0.07	0.00	0.07	1	0	1	1	0	1
2MBUT-1	0.4	0.0	0.0	0.27	0.00	0.00	5	0	0	3	0	0
NPENTANE	0.9	0.5	1.3	0.61	0.80	0.94	11	10	18	7	7	11
2MB=1=3	0.4	0.3	0.0	0.27	0.48	0.00	5	6	0	3	4	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 101101
DATE RUN: 11 30 76
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
1PENT=2	0.6	0.5	0.5	0.41	0.80	0.36	7	10	7	4	6	4
CISPENT-2	0.2	0.0	0.0	0.14	0.00	0.00	2	0	0	1	0	0
2MBUT-2	1.1	0.2	1.2	0.75	0.32	0.87	13	4	16	8	3	10
22MBUTANE	0.2	0.0	0.2	0.14	0.00	0.14	2	0	3	2	0	2
CYPENTENE	0.1	0.0	0.1	0.07	0.00	0.07	1	0	1	1	0	1
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.2	0.0	0.1	0.14	0.00	0.07	2	0	1	1	0	1
23MBUTANE	1.0	0.3	0.8	0.68	0.48	0.58	12	6	11	8	4	7
2MPENTANE	2.1	0.6	1.9	1.43	0.96	1.37	26	13	26	16	8	16
3MPENTANE	1.1	0.4	1.3	0.75	0.64	0.94	14	8	18	8	5	11
HEXENE-1	0.1	0.0	0.2	0.07	0.00	0.14	1	0	3	1	0	2
N HEXANE	0.6	0.2	0.8	0.41	0.32	0.58	7	4	11	5	3	7
TC6=3,=2	0.5	0.2	0.7	0.34	0.32	0.51	6	4	9	4	3	6
CC6=3	0.1	0.0	0.1	0.07	0.00	0.07	1	0	1	1	0	1
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	1.0	0.3	1.1	0.68	0.48	0.79	12	6	15	7	4	9
24MPENTANE	1.9	0.6	1.9	1.30	0.96	1.37	23	12	26	15	8	16
BENZENE	5.8	2.8	5.5	3.96	4.47	3.97	65	53	68	40	33	42
CYHEXANE	0.4	0.0	0.1	0.27	0.00	0.07	5	0	1	3	0	1
2MC6+23MC5	4.1	1.3	3.9	2.80	2.07	2.81	50	27	53	31	17	33
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.3	0.4	1.3	0.89	0.64	0.94	16	8	18	10	5	11
224MPENTAN	8.6	2.8	8.2	5.87	4.47	5.92	105	58	111	66	36	69
NHEPTANE	1.2	0.4	1.1	0.82	0.64	0.79	15	8	15	9	5	9
MCYHEXANE	0.4	0.1	0.4	0.27	0.16	0.29	5	2	5	3	1	3
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.9	0.6	1.9	1.30	0.96	1.37	23	12	26	14	8	16
234MC5	2.0	0.6	1.8	1.36	0.96	1.30	25	12	24	15	8	15
TOLUENE	11.1	4.2	10.1	7.57	6.70	7.29	126	80	126	78	50	78
23MC6+4MC7	1.3	0.6	1.3	0.89	0.96	0.96	16	12	18	10	8	11

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 101101
DATE RUN: 11 30 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: SUNNER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.3	0.5	1.3	0.89	0.80	0.94	16	10	18	10	6	11
3MHEPTANE	1.2	0.4	1.1	0.82	0.64	0.79	15	8	15	9	5	9
255MC6	1.3	0.4	1.2	0.89	0.64	0.87	16	8	16	10	5	10
N OCTANE	0.7	0.2	0.6	0.48	0.32	0.43	9	4	8	5	3	5
223MC6	0.1	0.0	0.1	0.07	0.00	0.07	1	0	1	1	0	1
ETCYHEXANE	0.3	0.1	0.3	0.20	0.16	0.22	4	2	4	2	1	2
ET BENZENE	1.7	0.6	1.6	1.16	0.96	1.15	19	12	20	12	7	12
M+PXYLENE	6.7	2.4	6.0	4.57	3.83	4.33	76	46	75	47	29	47
244MC8	0.9	0.3	0.9	0.61	0.48	0.65	11	6	12	7	4	8
O XYLENE	2.9	0.9	2.4	1.96	1.44	1.73	33	17	30	21	11	19
N NONANE	0.8	0.3	0.8	0.55	0.48	0.58	10	6	11	6	4	7
IPRBENZENE	0.5	0.1	0.5	0.34	0.16	0.36	6	2	6	4	1	4
NPRBENZENE	0.3	0.1	0.2	0.20	0.16	0.14	3	2	3	2	1	2
1M3ETBENZ	2.1	0.6	1.7	1.43	0.96	1.23	24	12	21	15	7	13
135MEBENZ	0.9	0.3	0.7	0.61	0.48	0.51	10	6	9	6	4	5
1M2ETBENZ	0.8	0.3	0.7	0.55	0.48	0.51	9	6	9	6	4	5
124MBENZ	2.5	0.8	1.7	1.71	1.28	1.23	29	16	21	18	10	13
SBUBENZENE	0.3	0.1	0.2	0.20	0.16	0.14	3	2	3	2	1	2
N DECANE	0.3	0.1	0.2	0.20	0.16	0.14	4	2	3	2	1	2
123MBENZ	0.6	0.2	0.4	0.41	0.32	0.29	7	4	5	4	2	3
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
UNKNOWNS	8.6	2.3	8.4	5.87	3.67	6.06	99	45	107	62	28	66

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 101102
DATE RUN: 12 01 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	175.5	76.9	166.9
GC PPMC	168.4	44.3	145.6

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	14.7	6.3	13.3	8.73	14.22	9.13	205	219	202	127	136	126
SATURATES	53.2	14.2	48.5	31.59	32.05	33.31	663	442	660	412	274	410
OLEFINS	42.2	10.7	36.5	25.06	24.15	25.07	514	325	485	319	202	301
ACETYLENE	2.4	0.0	1.6	1.43	0.00	1.10	27	0	20	17	0	12
NAPTHENES	2.5	0.5	2.3	1.48	1.13	1.58	30	15	31	19	9	19
AROMATICS	42.5	10.8	35.3	25.24	24.38	24.24	486	308	441	302	191	274
BENZENE	6.4	2.3	5.4	3.80	5.19	3.71	72	65	67	45	40	41
TOLUENE	12.7	3.3	10.8	7.54	7.45	7.42	145	94	135	90	59	84
C8+AROM	23.4	5.2	19.1	13.90	11.74	13.12	272	151	242	169	94	151
UNKNOWN	10.9	1.8	8.1	0.00	0.00	0.00	127	52	103	79	33	64
INDIVIDUAL COMPONENTS												
METHANE	14.7	6.3	13.3	8.73	14.22	9.13	205	219	202	127	136	126
ETHYLENE	17.8	5.2	16.3	10.57	11.74	11.20	217	158	217	135	98	135
ETHANE	2.8	1.0	2.6	1.66	2.26	1.79	37	33	37	23	20	23
ACETYLENE	2.4	0.0	1.6	1.43	0.00	1.10	27	0	20	17	0	12
C3 + C3=	11.6	3.4	9.9	6.89	7.67	6.80	141	103	132	88	64	82
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.7	0.2	0.8	0.42	0.45	0.55	9	6	11	5	4	7
B1 + 1B	5.4	1.0	4.7	3.21	2.26	3.23	66	30	62	41	19	39
NC4 +B=1=3	6.5	2.1	6.4	3.86	4.74	4.40	82	66	88	51	41	55
TBUTENE-2	1.3	0.3	1.1	0.77	0.68	0.76	16	9	15	10	6	9
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.0	0.3	0.8	0.59	0.68	0.55	12	9	11	8	6	7
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.2	0.12	0.00	0.14	2	0	3	2	0	2
ISOPENTANE	4.8	1.3	4.7	2.85	2.93	3.23	60	41	64	37	25	40
PENTENE-1	0.1	0.0	0.1	0.06	0.00	0.07	1	0	1	1	0	1
2MBUT-1	0.5	0.0	0.4	0.30	0.00	0.27	6	0	5	4	0	3
NPENTANE	1.0	0.5	1.0	0.59	1.13	0.69	13	16	14	8	10	8
2MB=1=3	0.5	0.0	0.2	0.30	0.00	0.14	6	0	3	4	0	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 101102
DATE RUN: 12 01 78
CAR: 1978 Vw RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.7	0.2	0.5	0.42	0.45	0.34	9	6	7	5	4	4
CISPENT-2	0.2	0.0	0.2	0.12	0.00	0.14	2	0	3	2	0	2
2MBUT-2	1.3	0.3	1.1	0.77	0.68	0.76	16	9	15	10	6	9
22MBUTANE	0.6	0.0	0.0	0.36	0.00	0.00	7	0	0	5	0	0
CYPENTENE	0.2	0.0	0.1	0.12	0.00	0.07	2	0	1	1	0	1
3MPENTENE	0.0	0.0	0.1	0.00	0.00	0.07	0	0	1	0	0	1
CYPENTANE	0.2	0.0	0.1	0.12	0.00	0.07	2	0	1	2	0	1
23MBUTANE	1.0	0.2	0.8	0.59	0.45	0.55	12	6	11	8	4	7
2MPENTANE	2.7	0.6	1.8	1.60	1.35	1.24	34	19	24	21	12	15
3MPENTANE	1.3	0.4	1.1	0.77	0.90	0.76	16	12	15	10	8	9
HEXENE-1	0.4	0.0	0.1	0.24	0.00	0.07	5	0	1	3	0	1
N HEXANE	0.8	0.2	0.6	0.48	0.45	0.41	10	6	8	6	4	5
TC6=3,=2	0.8	0.0	0.6	0.48	0.00	0.41	10	0	8	6	0	5
CC6=3	0.1	0.0	0.1	0.06	0.00	0.07	1	0	1	1	0	1
2MPENTENE2	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
MCYP43M2C5	1.2	0.3	1.1	0.71	0.68	0.76	15	9	15	9	6	9
24MPENTANE	2.2	0.5	1.9	1.31	1.13	1.30	27	15	26	17	10	16
BENZENE	6.4	2.3	5.4	3.80	5.19	3.71	72	65	67	45	40	41
CYHEXANE	0.4	0.0	0.4	0.24	0.00	0.27	5	0	5	3	0	3
2MC6=23MC5	4.4	1.1	4.1	2.61	2.48	2.82	55	34	56	34	21	35
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.4	0.4	1.3	0.83	0.90	0.89	17	12	18	11	8	11
224MPENTAN	9.1	2.3	8.5	5.40	5.19	5.84	113	71	115	70	44	71
NHEPTANE	1.3	0.3	1.2	0.77	0.68	0.82	16	9	16	10	6	10
MCYHEXANE	0.4	0.1	0.4	0.24	0.23	0.27	5	3	5	3	2	3
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6=233M	2.1	0.5	1.9	1.25	1.13	1.30	26	15	26	16	10	16
234MC5	2.1	0.5	1.9	1.25	1.13	1.30	26	15	26	16	10	16
TOLUENE	12.7	3.3	10.8	7.54	7.45	7.42	145	94	135	90	59	84
23MC6=4MC7	1.4	0.5	1.3	0.83	1.13	0.89	17	15	18	11	10	11

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 101102
DATE RUN: 12 01 78
CAR: 1978 VW RABBIT CAL FU-INJ VIN: 1783344616 DRIVER: #AND FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.4	0.4	1.3	0.83	0.90	0.89	17	12	16	11	8	11
3MHEPTANE	1.2	0.3	1.2	0.71	0.68	0.82	15	9	16	9	6	10
255MC6	1.3	0.3	1.3	0.77	0.66	0.89	16	9	18	10	6	11
N OCTANE	0.7	0.2	0.6	0.42	0.45	0.41	9	6	8	5	4	5
223MC6	0.2	0.0	0.2	0.12	0.00	0.14	2	0	3	2	0	2
ETCYHEXANE	0.3	0.1	0.3	0.18	0.23	0.21	4	3	4	2	2	2
ET BENZENE	2.0	0.5	1.7	1.19	1.13	1.17	23	14	21	14	9	13
M+PXYLENE	7.9	2.1	6.7	4.69	4.74	4.60	91	60	84	57	38	52
2+4MC8	1.0	0.1	0.9	0.59	0.23	0.62	12	3	12	8	2	8
O XYLENE	3.6	0.7	2.7	2.14	1.58	1.85	41	20	34	26	13	21
N NONANE	0.9	0.3	0.9	0.53	0.68	0.62	11	9	12	7	6	8
IPRBENZENE	0.6	0.1	0.5	0.36	0.23	0.34	7	3	6	4	2	4
NPRBENZENE	0.4	0.1	0.3	0.24	0.23	0.21	5	3	4	3	2	2
1M3ETBENZ	2.4	0.5	2.1	1.43	1.13	1.44	28	14	27	17	9	17
135MEBENZ	1.1	0.2	0.9	0.65	0.45	0.62	13	6	11	8	4	7
1M2ETBENZ	0.8	0.3	0.8	0.48	0.68	0.55	9	9	10	6	5	6
124MBENZ	3.0	0.5	2.4	1.78	1.13	1.65	35	14	30	22	9	19
SBUBENZENE	0.4	0.1	0.2	0.24	0.23	0.14	5	3	3	3	2	2
N DECANE	0.3	0.0	0.2	0.18	0.00	0.14	4	0	3	2	0	2
123MBENZ	0.8	0.1	0.5	0.48	0.23	0.34	9	3	6	6	2	4
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.1	0.06	0.00	0.07	1	0	1	1	0	1
1M3PRBENZ	0.3	0.0	0.2	0.18	0.00	0.14	3	0	3	2	0	2
UNKNOWNS	10.9	1.8	8.1	6.47	4.06	5.56	127	52	103	79	33	64

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110001
DATE RUN: 01 23 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-83010105 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 0

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	1656.5	217.6	146.6
GC PPMC	1669.1	205.1	123.1

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
MAJOR COMPONENTS												
METHANE	148.7	20.6	14.0	8.91	10.04	11.37	1971	434	218	1225	270	136
SATURATES	625.4	59.7	23.7	37.47	29.11	19.25	7421	1127	331	4612	700	206
OLEFINS	339.7	58.9	47.6	20.35	27.74	38.67	3937	1049	649	2447	652	403
ACETYLENE	132.5	17.2	9.7	7.94	8.39	7.88	1425	294	123	886	183	76
NAPTHENES	31.1	3.1	1.4	1.86	1.51	1.14	360	57	19	224	36	12
AROMATICS	278.6	30.9	18.7	16.69	15.07	15.19	3032	535	239	1885	332	149
BENZENE	45.2	5.5	5.1	2.71	2.68	4.14	486	94	65	302	58	40
TOLUENE	69.9	7.3	4.8	4.19	3.56	3.90	761	126	61	473	79	38
C8+AROM	163.5	18.1	8.8	9.80	8.82	7.15	1809	318	115	1124	198	71
UNKNOWN	113.1	16.7	8.0	0.00	0.00	0.00	1254	295	104	780	183	65
INDIVIDUAL COMPONENTS												
METHANE	148.7	20.6	14.0	8.91	10.04	11.37	1971	434	218	1225	270	136
ETHYLENE	129.9	24.3	25.4	7.78	11.85	20.63	1506	448	346	936	278	215
ETHANE	11.2	2.1	2.3	0.67	1.02	1.87	139	41	34	86	26	21
ACETYLENE	132.5	17.2	9.7	7.94	8.39	7.88	1425	294	123	886	183	76
C3 + C3=	66.1	12.6	11.7	3.96	6.14	9.50	766	232	160	476	144	99
C=C=C	2.1	0.4	0.7	0.13	0.20	0.57	23	7	9	14	4	6
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	14.9	1.7	1.8	0.89	0.83	1.46	179	32	25	111	20	16
B1 + 1B	33.6	7.0	5.1	2.01	3.41	4.14	389	129	70	242	80	43
NC4 +B=1=3	74.3	8.0	3.0	4.45	3.90	2.44	892	153	42	554	95	26
TBUTENE-2	9.7	1.5	0.7	0.58	0.73	0.57	112	28	10	70	17	6
22MPROPANE	0.7	0.0	0.1	0.04	0.00	0.08	8	0	1	5	0	1
CBUTENE-2	9.2	1.3	0.8	0.55	0.63	0.65	107	24	11	66	15	7
B=1=2	0.0	0.1	0.0	0.00	0.05	0.00	0	2	0	0	1	0
3MB1	2.9	0.5	0.2	0.17	0.24	0.16	34	9	3	21	6	2
ISOPENTANE	73.3	7.1	2.5	4.39	3.46	2.03	874	135	35	543	84	22
PENTENE-1	4.8	0.5	0.2	0.29	0.24	0.16	56	9	3	35	6	2
2MBUT-1	10.6	1.1	0.4	0.64	0.54	0.32	123	20	5	76	13	3
NPENTANE	14.3	1.5	0.6	0.86	0.73	0.49	171	28	8	106	18	5
2MB=1=3	3.3	0.1	0.0	0.20	0.05	0.00	37	2	0	23	1	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110001
DATE RUN: 01 23 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WH-63010105 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	12.2	1.1	0.4	0.73	0.54	0.32	141	20	5	88	13	3
CISPENT-2	6.5	0.5	0.2	0.39	0.24	0.16	75	9	3	47	6	2
2MBUT-2	19.5	2.0	0.5	1.17	0.98	0.41	226	37	7	140	23	4
22MBUTANE	1.4	0.0	0.0	0.08	0.00	0.00	17	0	0	10	0	0
CYPENTENE	2.6	0.3	0.1	0.16	0.15	0.08	29	5	1	18	3	1
3MPENTENE	1.6	0.2	0.1	0.10	0.10	0.08	19	4	1	12	2	1
CYPENTANE	1.2	0.2	0.1	0.07	0.10	0.08	14	4	1	9	2	1
23MBUTANE	13.6	1.1	0.4	0.81	0.54	0.32	161	21	6	100	13	3
2MPENTANE	31.6	3.4	0.9	1.89	1.66	0.73	375	64	13	233	40	8
3MPENTANE	18.4	2.1	1.1	1.10	1.02	0.89	218	40	15	136	25	10
HEXENE-1	6.0	1.1	0.4	0.36	0.54	0.32	70	20	5	43	13	3
N HEXANE	8.9	1.1	0.6	0.53	0.54	0.49	106	21	8	66	13	5
TC6=3=2	10.9	1.5	0.4	0.65	0.73	0.32	126	28	5	79	17	3
CC6=3	3.1	0.3	0.1	0.19	0.15	0.08	36	6	1	22	3	1
2MPENTENE2	5.1	0.5	0.2	0.31	0.24	0.16	59	9	3	37	6	2
MCYP43M2C5	15.4	1.5	0.7	0.92	0.73	0.57	176	28	10	111	17	6
24MPENTANE	26.9	2.5	0.9	1.61	1.22	0.73	318	47	13	198	29	8
BENZENE	45.2	5.5	5.1	2.71	2.68	4.14	486	94	65	302	58	40
CYHEXANE	3.8	0.5	0.3	0.23	0.24	0.24	44	9	4	27	6	3
2MC6+23MC5	73.4	6.1	2.0	4.40	2.97	1.62	868	115	28	540	71	17
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	14.2	1.2	0.4	0.85	0.59	0.32	168	23	6	104	14	3
224MPENTAN	112.6	10.0	3.1	6.75	4.88	2.52	1328	188	43	826	117	27
NHEPTANE	14.1	1.0	0.3	0.84	0.49	0.24	167	19	4	104	12	3
MCYHEXANE	7.8	0.7	0.2	0.47	0.34	0.16	90	13	3	56	8	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	20.7	1.8	0.6	1.24	0.88	0.49	244	34	8	152	21	5
234MC5	31.9	2.5	0.8	1.91	1.22	0.65	376	47	11	234	29	7
TOLUENE	69.9	7.3	4.8	4.19	3.56	3.90	761	126	61	473	79	38
23MC6+4MC7	13.2	1.3	0.5	0.79	0.63	0.41	156	24	7	97	15	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110001
DATE RUN: 01 23 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-03010105 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	10.9	1.0	0.4	0.65	0.49	0.32	129	19	6	80	12	3
3MHEPTANE	11.7	1.0	0.4	0.70	0.49	0.32	138	19	6	86	12	3
25DMC6	11.2	1.0	0.3	0.67	0.49	0.24	132	19	4	82	12	3
N OCTANE	5.1	0.4	0.1	0.31	0.20	0.08	60	8	1	37	5	1
223MC6	1.4	0.1	0.0	0.08	0.05	0.00	16	2	0	10	1	0
ETCYHEXANE	2.9	0.2	0.1	0.17	0.10	0.08	34	4	1	21	2	1
ET BENZENE	12.6	1.4	0.9	0.75	0.68	0.73	138	24	12	86	15	7
M+PXYLENE	49.1	5.1	3.1	2.94	2.49	2.52	538	89	40	335	55	25
2+4MC8	6.9	0.8	0.4	0.41	0.39	0.32	81	15	6	50	9	3
O XYLENE	20.4	2.4	1.1	1.22	1.17	0.89	224	42	14	139	26	9
N NONANE	7.6	0.8	0.2	0.46	0.39	0.16	89	15	3	56	9	2
IPRBENZENE	5.3	0.5	0.1	0.32	0.24	0.08	58	9	1	36	5	1
NPRBENZENE	3.2	0.3	0.1	0.19	0.15	0.08	35	5	1	22	3	1
1M3ETBENZ	19.2	2.2	1.1	1.15	1.07	0.89	212	39	14	132	24	9
135MEBENZ	7.2	0.9	0.4	0.43	0.44	0.32	79	16	5	49	10	3
1M2ETBENZ	8.6	0.9	0.3	0.52	0.44	0.24	95	16	4	59	10	2
124MBENZ	23.5	2.7	1.3	1.41	1.32	1.06	259	47	17	161	29	10
SBUBENZENE	2.4	0.3	0.1	0.14	0.15	0.08	27	5	1	17	3	1
N DECANE	1.0	0.1	0.0	0.06	0.05	0.00	12	2	0	7	1	0
123MBENZ	5.3	0.7	0.1	0.32	0.34	0.08	58	12	1	36	8	1
INDANE	0.8	0.0	0.0	0.05	0.00	0.00	9	0	0	5	0	0
13EBENZENE	0.9	0.0	0.0	0.05	0.00	0.00	10	0	0	6	0	0
NBUBENZENE	1.2	0.3	0.1	0.07	0.15	0.08	13	5	1	8	3	1
1M3PRBENZ	3.8	0.4	0.1	0.23	0.20	0.08	42	7	1	26	4	1
UNKNOWNS	113.1	16.7	8.0	6.78	8.14	6.50	1254	295	104	780	183	65

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110002
DATE RUN: 01 24 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-B3010105 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 0

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	1859.3	246.2	153.9
GC PPMC	1863.6	228.3	132.7

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	144.8	20.4	14.9	7.77	8.94	11.23	1890	424	219	1175	264	136
SATURATES	752.2	69.5	26.3	40.36	30.44	19.82	8791	1294	346	5463	804	215
OLEFINS	363.3	62.4	50.2	19.49	27.33	37.83	4147	1135	646	2577	705	401
ACETYLENE	139.2	14.7	11.7	7.47	6.44	8.82	1475	248	140	916	154	87
NAPTHENES	37.8	3.7	1.3	2.03	1.62	0.98	431	67	17	268	42	10
AROMATICS	296.6	36.1	21.1	15.92	15.81	15.90	3179	617	255	1976	383	158
BENZENE	44.6	6.0	5.3	2.39	2.63	3.99	472	101	63	294	63	39
TOLUENE	78.4	8.7	5.2	4.21	3.81	3.92	840	149	63	522	92	39
C8+AROM	173.6	21.4	10.6	9.32	9.37	7.99	1891	372	130	1176	231	81
UNKNOWN	129.7	21.5	7.2	0.00	0.00	0.00	1417	374	89	880	233	55
INDIVIDUAL COMPONENTS												
METHANE	144.8	20.4	14.9	7.77	8.94	11.23	1890	424	219	1175	264	136
ETHYLENE	123.5	25.4	26.4	6.63	11.13	19.89	1410	462	340	876	287	211
ETHANE	11.2	2.4	2.8	0.60	1.05	2.11	137	47	39	85	29	24
ACETYLENE	136.3	14.7	11.0	7.31	6.44	8.29	1444	248	131	897	154	82
C3 + C3=	68.0	14.2	12.4	3.65	6.22	9.34	776	258	160	482	161	99
C=C=C	2.2	0.4	0.7	0.12	0.18	0.53	24	7	9	15	4	5
METHACETYL	2.9	0.0	0.7	0.16	0.00	0.53	32	0	9	20	0	5
ISOBUTANE	15.2	2.0	1.0	0.82	0.88	0.75	180	38	13	112	23	8
B1 + IB	34.9	8.1	5.6	1.87	3.55	4.22	398	147	72	248	92	45
NC4 +B=1=3	86.9	9.2	3.4	4.66	4.03	2.56	1028	173	45	639	108	28
TBUTENE-2	12.2	1.7	0.7	0.65	0.74	0.53	139	31	9	87	19	6
22MPROPANE	0.0	0.0	0.2	0.00	0.00	0.15	0	0	3	0	0	2
CBUTENE-2	10.6	1.5	0.8	0.57	0.66	0.60	121	27	10	75	17	6
B=1=2	0.0	0.1	0.1	0.00	0.04	0.08	0	2	1	0	1	1
3MB1	3.4	0.5	0.2	0.18	0.22	0.15	39	9	3	24	6	2
ISOPENTANE	90.4	8.2	2.6	4.85	3.59	1.96	1062	153	34	660	95	21
PENTENE-1	5.9	0.6	0.2	0.32	0.26	0.15	67	11	3	42	7	2
2MBUT-1	12.9	1.3	0.5	0.69	0.57	0.38	147	24	6	92	15	4
NPENTANE	17.5	1.7	0.6	0.94	0.74	0.45	206	32	8	128	20	5
2MB=1=3	5.2	0.2	0.0	0.17	0.09	0.00	36	4	0	22	2	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110002
DATE RUN: 01 24 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-83010105 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	15.0	1.3	0.4	0.80	0.57	0.30	171	24	5	106	15	3
CISPENT-2	8.1	0.7	0.2	0.43	0.31	0.15	92	13	3	57	8	2
2MBUT-2	24.0	2.3	0.7	1.29	1.01	0.53	274	42	9	170	26	6
22MBUTANE	0.6	0.0	1.1	0.03	0.00	0.83	7	0	14	4	0	9
CYPENTENE	3.3	0.3	0.1	0.18	0.13	0.08	37	5	1	23	3	1
3MPENTENE	2.4	0.2	0.1	0.13	0.09	0.08	27	4	1	17	2	1
CYPENTANE	2.1	0.2	0.1	0.11	0.09	0.08	24	4	1	15	2	1
23MBUTANE	19.1	1.3	0.4	1.02	0.57	0.30	223	24	5	139	15	3
2MPENTANE	47.3	3.9	1.3	2.54	1.71	0.98	553	73	17	344	45	11
3MPENTANE	24.2	2.4	0.9	1.30	1.05	0.68	283	45	12	176	28	7
HEXENE-1	9.0	1.3	0.5	0.48	0.57	0.38	103	24	6	64	15	4
N HEXANE	11.5	1.2	0.5	0.62	0.53	0.38	134	22	7	84	14	4
TC6=3.=2	13.8	1.3	0.3	0.74	0.57	0.23	158	24	4	98	15	2
CC6=3	4.4	0.4	0.2	0.24	0.18	0.15	50	7	3	31	5	2
2MPENTENE2	6.5	0.6	0.1	0.35	0.26	0.08	74	11	1	46	7	1
MCYP4.3M2C5	18.8	1.8	0.5	1.01	0.79	0.38	215	33	6	133	20	4
24MPENTANE	32.6	2.9	0.8	1.75	1.27	0.60	380	54	11	236	33	7
BENZENE	44.6	6.0	5.3	2.39	2.63	3.99	472	101	63	294	63	39
CYHEXANE	4.3	0.6	0.3	0.23	0.26	0.23	49	11	4	31	7	2
2MC6+23MC5	87.7	7.2	2.1	4.71	3.15	1.58	1022	134	28	635	83	17
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	17.3	1.4	0.4	0.93	0.61	0.30	202	26	5	125	16	3
224MPENTAN	133.0	11.7	3.4	7.14	5.12	2.56	1545	217	45	960	135	28
NHEPTANE	16.9	1.3	0.4	0.91	0.57	0.30	197	24	5	122	15	3
MCYHEXANE	9.2	0.8	0.3	0.49	0.35	0.23	105	15	4	65	9	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	24.3	2.1	0.7	1.30	0.92	0.53	282	39	9	175	24	6
234MC5	37.4	2.9	0.8	2.01	1.27	0.60	435	54	10	270	33	7
TOLUENE	78.4	8.7	5.2	4.21	3.81	3.92	840	149	63	522	92	39
23MC6+4MC7	15.2	1.4	0.5	0.82	0.61	0.38	177	26	7	110	16	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110002
DATE RUN: 01 24 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-8301015 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	12.6	1.2	0.4	0.68	0.53	0.30	146	22	5	91	14	3
3MHEPTANE	13.5	1.2	0.5	0.72	0.53	0.38	157	22	7	97	14	4
255MC6	13.0	1.2	0.4	0.70	0.53	0.30	151	22	5	94	14	3
N OCTANE	5.9	0.5	0.2	0.32	0.22	0.15	69	9	3	43	6	2
223MC6	1.7	0.3	0.1	0.09	0.13	0.08	20	6	1	12	3	1
ETCYHEXANE	3.4	0.3	0.1	0.18	0.13	0.08	39	5	1	24	3	1
ET BENZENE	13.9	1.7	1.0	0.75	0.74	0.75	150	29	12	93	18	8
M+PXYLENE	53.8	6.2	3.5	2.89	2.72	2.64	581	107	43	361	66	26
2+4MC8	7.6	0.9	0.4	0.41	0.39	0.30	88	17	5	55	10	3
O XYLENE	22.0	2.7	1.4	1.18	1.18	1.06	238	46	17	148	29	11
N NONANE	8.7	0.9	0.4	0.47	0.39	0.30	101	17	5	63	10	3
IPRBENZENE	5.9	0.6	0.2	0.32	0.26	0.15	64	10	2	40	6	2
NPRBENZENE	3.4	0.4	0.1	0.18	0.18	0.08	37	7	1	23	4	1
1M3ETBENZ	20.3	2.6	1.3	1.09	1.14	0.98	221	45	16	137	28	10
135MEBENZ	7.5	1.0	0.5	0.40	0.44	0.38	82	17	6	51	11	4
1M2ETBENZ	9.5	1.0	0.3	0.51	0.44	0.23	103	17	4	64	11	2
124MBENZ	23.2	3.0	1.4	1.24	1.31	1.06	252	52	17	157	32	11
SBUBENZENE	2.4	0.3	0.1	0.13	0.13	0.08	26	5	1	16	3	1
N DECANE	0.9	0.1	0.0	0.05	0.04	0.00	10	2	0	6	1	0
123MBENZ	4.9	0.7	0.3	0.26	0.31	0.23	53	12	4	33	8	2
INDANE	1.0	0.3	0.1	0.05	0.13	0.08	11	5	1	7	3	1
13EBENZENE	0.8	0.1	0.1	0.04	0.04	0.08	9	2	1	5	1	1
NBUBENZENE	1.2	0.3	0.1	0.06	0.13	0.08	13	5	1	8	3	1
1M3PRBENZ	3.8	0.5	0.2	0.20	0.22	0.15	42	9	2	26	5	2
UNKNOWNS	129.7	21.5	7.2	6.96	9.42	5.43	1417	374	89	880	233	55

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110201
DATE RUN: 01 22 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-83010105 DRIVER: SWARTZLANDER FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 20

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	2341.8	247.0	132.7
GC PPMC	2223.8	219.1	108.7

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	162.5	16.1	12.3	7.31	7.35	11.32	2310	363	197	1436	226	122
SATURATES	946.4	79.9	19.1	42.56	36.47	17.57	12045	1613	273	7486	1002	170
OLEFINS	447.5	53.2	44.4	20.12	24.28	40.85	5563	1049	620	3457	652	386
ACETYLENE	122.2	16.8	9.9	5.50	7.67	9.11	1410	307	128	876	191	80
NAPTHENES	45.5	4.2	1.2	2.05	1.92	1.10	566	83	17	352	51	10
AROMATICS	364.5	33.3	16.4	16.39	15.20	15.09	4255	616	215	2645	383	134
BENZENE	58.5	5.5	4.6	2.63	2.51	4.23	675	101	60	419	63	37
TOLUENE	95.3	8.6	4.2	4.29	3.93	3.86	1112	159	55	691	99	34
C8+AROM	210.7	19.2	7.6	9.47	8.76	6.99	2508	361	101	1554	225	63
UNKNOWN	135.2	15.6	5.4	0.00	0.00	0.00	1608	294	72	1000	183	45
INDIVIDUAL COMPONENTS												
METHANE	162.5	16.1	12.3	7.31	7.35	11.32	2310	363	197	1436	226	122
ETHYLENE	170.5	21.9	23.7	7.67	10.00	21.80	2120	432	331	1317	268	206
ETHANE	13.9	1.8	2.2	0.63	0.82	2.02	185	38	33	115	24	20
ACETYLENE	122.2	16.8	9.9	5.50	7.67	9.11	1410	307	128	876	191	80
C3 + C3=	82.3	10.8	11.1	3.70	4.93	10.21	1023	213	155	636	132	96
C=C=C	3.1	0.4	0.6	0.14	0.18	0.56	37	8	8	23	5	5
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	25.2	2.3	1.3	1.13	1.05	1.20	325	47	19	202	29	12
B1 + IB	35.7	5.3	4.9	1.61	2.42	4.51	444	104	68	276	65	43
NC4 +B=1=3	118.8	10.0	2.7	5.34	4.56	2.48	1530	204	39	951	127	24
TBUTENE-2	14.5	1.5	0.7	0.65	0.68	0.64	180	30	10	112	18	6
22MPROPANE	1.1	0.0	0.0	0.05	0.00	0.00	14	0	0	9	0	0
CBUTENE-2	13.9	1.4	0.8	0.63	0.64	0.74	173	28	11	107	17	7
B=1=2	0.3	0.0	0.1	0.01	0.00	0.09	4	0	1	2	0	1
3MB1	4.6	0.5	0.2	0.21	0.23	0.18	57	10	3	36	6	2
ISOPENTANE	117.1	9.9	2.0	5.27	4.52	1.84	1498	201	29	931	125	18
PENTENE-1	7.4	0.6	0.1	0.33	0.27	0.09	92	12	1	57	7	1
2MBUT-1	16.1	1.3	0.3	0.72	0.59	0.28	200	26	4	124	16	3
NPENTANE	22.2	2.1	0.5	1.00	0.96	0.46	284	43	7	176	26	4
2MB=1=3	1.1	0.1	0.0	0.05	0.05	0.00	13	2	0	8	1	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO&: 110201
DATE RUN: 01 22 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-63010105 DRIVER: SWARTZLANDER FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	17.9	1.5	0.3	0.80	0.68	0.28	223	30	4	138	18	3
CISPENT-2	9.8	0.8	0.1	0.44	0.37	0.09	122	16	1	76	10	1
2MBUT-2	29.3	2.6	0.5	1.32	1.19	0.46	364	51	7	226	32	4
22MBUTANE	0.9	0.0	0.0	0.04	0.00	0.00	11	0	0	7	0	0
CYPENTENE	3.8	0.3	0.1	0.17	0.14	0.09	46	6	1	29	4	1
3MPENTENE	3.0	0.2	0.0	0.13	0.09	0.00	37	4	0	23	2	0
CYPENTANE	2.6	0.2	0.1	0.12	0.09	0.09	32	4	1	20	2	1
23MBUTANE	25.4	1.6	0.3	1.14	0.73	0.28	323	32	4	201	20	3
2MPENTANE	52.8	4.1	0.8	2.37	1.87	0.74	672	83	11	418	51	7
3MPENTANE	27.3	2.7	0.8	1.23	1.23	0.74	347	54	11	216	34	7
HEXENE-1	8.2	1.4	0.2	0.37	0.64	0.18	102	26	3	63	17	2
N HEXANE	12.6	1.3	0.6	0.57	0.59	0.55	160	26	9	100	16	5
TC6=3,=2	14.4	1.5	0.4	0.65	0.68	0.37	179	30	6	111	18	3
CC6=3	4.5	0.4	0.1	0.20	0.18	0.09	56	8	1	35	5	1
2MPENTENE2	7.1	0.7	0.2	0.32	0.32	0.18	88	14	3	55	9	2
MCYP43M2C5	22.2	2.1	0.6	1.00	0.96	0.55	276	41	8	172	26	5
24MPENTANE	38.2	3.4	0.7	1.72	1.55	0.64	485	68	10	301	43	6
BENZENE	58.5	5.5	4.6	2.63	2.51	4.23	675	101	60	419	63	37
CYHEXANE	5.3	0.6	0.3	0.24	0.27	0.28	66	12	4	41	7	3
2MC6+23MC5	107.1	8.7	1.5	4.82	3.97	1.38	1359	175	21	844	109	13
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	20.8	1.7	0.3	0.94	0.78	0.28	264	34	4	164	21	3
224MPENTAN	164.9	13.6	2.4	7.42	6.21	2.21	2087	273	34	1297	170	21
NHEPTANE	19.4	1.6	0.2	0.87	0.73	0.18	246	32	3	153	20	2
MCYHEXANE	11.2	1.0	0.2	0.50	0.46	0.18	139	20	3	87	12	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	33.7	2.7	0.4	1.52	1.23	0.37	426	54	6	265	34	4
234MC5	47.1	3.7	0.5	2.12	1.69	0.46	596	74	7	370	46	4
TOLUENE	95.3	8.6	4.2	4.29	3.93	3.86	1112	159	55	691	99	34
23MC6+4MC7	18.8	1.7	0.4	0.85	0.78	0.37	238	34	6	148	21	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110201
DATE RUN: 01 22 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-U3010105 DRIVER: SWARTZLANDER FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	15.5	1.3	0.3	0.70	0.59	0.28	196	26	4	122	16	3
3MHEPTANE	16.4	1.4	0.3	0.74	0.64	0.28	208	28	4	129	17	3
25MC6	16.2	1.3	0.2	0.73	0.59	0.18	205	26	3	127	16	2
N OCTANE	7.2	0.6	0.1	0.32	0.27	0.09	91	12	1	57	7	1
23MC6	2.1	0.3	0.0	0.09	0.14	0.00	27	6	0	16	4	0
ETCYHEXANE	4.2	0.3	0.0	0.19	0.14	0.00	52	6	0	32	4	0
ET BENZENE	16.9	1.6	0.8	0.76	0.73	0.74	199	30	11	124	19	7
M+PXYLENE	63.7	5.8	2.7	2.86	2.65	2.48	749	108	36	466	67	22
2+4MC8	9.5	0.9	0.3	0.43	0.41	0.28	120	18	4	75	11	3
O XYLENE	26.5	2.5	1.0	1.19	1.14	0.92	312	47	13	194	29	8
N NONANE	11.0	1.0	0.3	0.49	0.46	0.28	139	20	4	86	12	3
IPRBENZENE	7.5	0.7	0.1	0.34	0.32	0.09	89	13	1	55	8	1
NPRBENZENE	4.3	0.3	0.1	0.19	0.14	0.09	51	6	1	32	3	1
1M3ETBENZ	24.6	2.3	1.0	1.11	1.05	0.92	291	43	13	181	27	8
135MEBENZ	9.0	0.9	0.4	0.40	0.41	0.37	107	17	5	66	10	3
1M2ETBENZ	12.3	1.2	0.2	0.55	0.55	0.18	146	23	3	90	14	2
124MBENZ	27.5	2.4	0.9	1.24	1.10	0.83	325	45	12	202	28	7
SBUBENZENE	3.2	0.3	0.0	0.14	0.14	0.00	38	6	0	24	4	0
N DECANE	1.2	0.2	0.0	0.05	0.09	0.00	15	4	0	9	2	0
123MBENZ	6.1	0.5	0.2	0.27	0.23	0.18	72	9	3	45	6	2
INDANE	2.1	0.1	0.0	0.09	0.05	0.00	24	2	0	15	1	0
13ERENZENE	1.3	0.1	0.0	0.06	0.05	0.00	15	2	0	10	1	0
NBUBENZENE	0.0	0.2	0.1	0.00	0.09	0.09	0	4	1	0	2	1
1M3PRBENZ	5.7	0.3	0.1	0.26	0.14	0.09	68	6	1	42	4	1
UNKNOWNS	135.2	15.6	5.4	6.08	7.12	4.97	1608	294	72	1000	183	45

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110202
DATE RUN: 01 25 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WA-63010105 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 20

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	1255.5	210.3	114.3
GC PPMC	1262.7	193.1	91.5

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	106.8	19.9	8.5	8.62	10.31	9.29	1442	436	138	896	271	85
SATURATES	473.3	61.6	20.0	37.48	31.90	21.86	5617	1207	290	3491	750	180
OLEFINS	281.0	51.9	36.3	22.25	26.88	39.67	3257	993	514	2024	617	319
ACETYLENE	90.2	17.2	7.0	7.14	8.91	7.65	970	306	92	603	190	57
NAPTHENES	23.3	3.2	1.3	1.85	1.66	1.42	270	61	18	168	38	11
AROMATICS	214.0	28.0	13.8	16.95	14.50	15.08	2329	503	183	1448	313	114
BENZENE	30.3	5.0	3.4	2.40	2.59	3.72	326	89	45	203	55	28
TOLUENE	51.3	7.0	3.5	4.06	3.63	3.83	558	126	47	347	78	29
C8+AROM	132.4	16.0	6.9	10.49	8.29	7.54	1465	292	93	910	182	58
UNKNOWN	72.1	11.3	4.6	0.00	0.00	0.00	800	207	62	497	129	39
INDIVIDUAL COMPONENTS												
METHANE	106.8	19.9	8.5	8.62	10.31	9.29	1442	436	138	896	271	85
ETHYLENE	103.9	22.9	18.5	8.23	11.86	20.22	1204	438	262	749	272	163
ETHANE	9.8	1.8	1.6	0.78	0.93	1.75	122	37	24	76	23	15
ACETYLENE	90.2	17.2	7.0	7.14	8.91	7.65	970	306	92	603	190	57
C3 + C3=	59.9	11.3	9.2	4.74	5.85	10.05	694	216	130	432	134	81
C=C=C	1.8	0.3	0.5	0.14	0.16	0.55	20	5	7	12	3	4
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	12.5	1.6	1.2	0.99	0.83	1.31	150	32	18	93	20	11
B1 + IB	30.9	5.9	4.0	2.45	3.06	4.37	358	113	57	223	70	35
NC4 +B=1=3	61.2	8.2	2.6	4.85	4.25	2.84	735	163	38	457	101	24
TBUTENE-2	8.8	1.4	0.6	0.70	0.73	0.66	102	27	8	63	17	5
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	7.5	1.2	0.6	0.59	0.62	0.66	87	23	8	54	14	5
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	2.5	0.4	0.2	0.20	0.21	0.22	29	8	3	18	5	2
ISOPENTANE	57.4	7.4	2.2	4.55	3.83	2.40	685	146	32	425	91	20
PENTENE-1	3.7	0.4	0.2	0.29	0.21	0.22	43	8	3	27	5	2
2MBUT-1	8.4	1.0	0.3	0.67	0.52	0.33	97	19	4	61	12	3
NPENTANE	11.0	1.5	0.5	0.87	0.78	0.55	131	30	7	82	18	5
2MB=1=3	1.9	0.2	0.0	0.15	0.10	0.00	21	4	0	13	2	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110202
DATE RUN: 01 25 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: HB-83010105 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	8.9	1.1	0.3	0.70	0.57	0.33	103	21	4	64	13	3
CISPENT-2	4.8	0.6	0.2	0.38	0.31	0.22	56	11	3	35	7	2
2MBUT-2	14.3	2.0	0.4	1.13	1.04	0.44	166	38	6	103	24	4
22MBUTANE	0.5	2.1	0.0	0.04	1.09	0.00	6	41	0	4	26	0
CYPENTENE	2.1	0.3	0.1	0.17	0.16	0.11	24	6	1	15	3	1
3MPENTENE	1.5	0.2	0.1	0.12	0.10	0.11	17	4	1	11	2	1
CYPENTANE	1.3	0.2	0.1	0.10	0.10	0.11	15	4	1	9	2	1
23MBUTANE	11.5	1.2	0.4	0.91	0.62	0.44	136	24	6	85	15	4
2MPENTANE	27.4	2.8	0.8	2.17	1.45	0.87	325	55	12	202	34	7
3MPENTANE	15.0	2.3	0.9	1.19	1.19	0.98	178	45	13	111	28	8
HEXENE-1	6.0	0.8	0.4	0.48	0.41	0.44	70	15	6	43	10	4
N HEXANE	7.1	1.0	0.5	0.56	0.52	0.55	84	20	7	52	12	5
TC6=3,=2	7.9	1.1	0.4	0.63	0.57	0.44	92	21	6	57	13	4
CC6=3	2.4	0.3	0.1	0.19	0.16	0.11	28	6	1	17	4	1
2MPENTENE2	3.8	0.5	0.2	0.30	0.26	0.22	44	10	3	27	6	2
MCYP43M2C5	11.5	1.6	0.6	0.91	0.83	0.66	133	31	8	83	19	5
24MPENTANE	19.4	2.6	0.8	1.54	1.35	0.87	229	51	12	143	32	7
BENZENE	30.3	5.0	3.4	2.40	2.59	3.72	326	89	45	203	55	28
CYHEXANE	2.9	0.5	0.3	0.23	0.26	0.33	34	10	4	21	6	3
2MC6+23MC5	52.4	6.3	1.8	4.15	3.26	1.97	620	123	26	385	76	16
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	10.0	1.2	0.4	0.79	0.62	0.44	118	23	6	74	15	4
224MPENTAN	80.0	10.1	2.8	6.34	5.23	3.06	944	197	40	587	122	25
NHEPTANE	9.5	1.1	0.3	0.75	0.57	0.33	112	21	4	70	13	3
MCYHEXANE	5.5	0.7	0.2	0.44	0.36	0.22	64	13	3	40	8	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	16.6	1.8	0.5	1.31	0.93	0.55	196	35	7	122	22	4
234MC5	22.9	2.5	0.7	1.81	1.29	0.77	270	49	10	168	30	6
TOLUENE	51.3	7.0	3.5	4.06	3.63	3.63	556	126	47	347	78	29
23MC6+4MC7	9.4	1.2	0.4	0.74	0.62	0.44	111	23	6	69	15	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110202
DATE RUN: 01 25 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-63010105 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	7.7	0.9	0.3	0.61	0.47	0.33	91	18	4	56	11	3
3MHEPTANE	8.3	1.0	0.3	0.66	0.52	0.33	98	19	4	61	12	3
255MC6	7.9	1.0	0.3	0.63	0.52	0.33	93	19	4	58	12	3
N OCTANE	3.5	0.4	0.1	0.28	0.21	0.11	41	8	1	26	5	1
223MC6	1.1	0.1	0.0	0.09	0.05	0.00	13	2	0	8	1	0
ETCYHEXANE	2.1	0.2	0.1	0.17	0.10	0.11	24	4	1	15	2	1
ET BENZENE	9.8	1.3	0.7	0.78	0.67	0.77	107	24	9	67	15	6
M+PXYLENE	37.6	4.7	2.3	2.98	2.43	2.51	412	85	31	256	53	19
2+4MC8	5.1	0.7	0.3	0.40	0.36	0.33	60	14	4	37	8	3
O XYLENE	15.8	2.3	0.9	1.25	1.19	0.98	173	42	12	108	26	7
N NONANE	5.4	0.7	0.3	0.43	0.36	0.33	64	14	4	40	8	3
IPRBENZENE	3.8	0.5	0.1	0.30	0.26	0.11	42	9	1	26	6	1
NPRBENZENE	2.3	0.2	0.1	0.18	0.10	0.11	25	4	1	16	2	1
1M3ETBENZ	15.4	1.9	0.9	1.22	0.98	0.98	170	35	12	106	22	8
135MEBENZ	5.7	0.7	0.3	0.45	0.36	0.33	63	13	4	39	8	3
1M2ETBENZ	6.4	0.8	0.2	0.51	0.41	0.22	71	15	3	44	9	2
124MBENZ	18.6	2.2	0.8	1.47	1.14	0.87	205	40	11	128	25	7
SBUBENZENE	1.7	0.2	0.0	0.13	0.10	0.00	19	4	0	12	2	0
N DECANE	0.7	0.1	0.0	0.06	0.05	0.00	8	2	0	5	1	0
123MBENZ	4.1	0.5	0.2	0.32	0.26	0.22	45	9	3	28	6	2
INDANE	1.2	0.2	0.0	0.10	0.10	0.00	13	4	0	8	2	0
13EHENZENE	0.8	0.0	0.0	0.06	0.00	0.00	9	0	0	6	0	0
NBUBENZENE	3.8	0.2	0.1	0.30	0.10	0.11	42	4	1	26	2	1
1M3PRBENZ	5.4	0.3	0.3	0.43	0.16	0.33	60	5	4	37	3	3
UNKNOWNS	72.1	11.3	4.6	5.71	5.85	5.03	800	207	62	497	129	39

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110401
DATE RUN: 01 19 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-U3010105 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 40

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	472.6	42.5	104.9
GC PPMC	472.5	31.0	84.8

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	29.1	3.3	7.2	6.16	10.65	8.49	399	66	117	248	53	73
SATURATES	184.4	5.2	21.5	39.03	16.77	25.35	2266	121	314	1408	75	195
OLEFINS	100.9	15.2	31.6	21.35	49.03	37.26	1211	347	450	753	215	280
ACETYLENE	30.7	3.1	6.0	6.50	10.00	7.08	342	66	79	213	41	49
NAPTHENES	9.5	0.0	1.4	2.01	0.00	1.65	114	0	20	71	0	12
AROMATICS	85.2	3.5	12.5	18.03	11.29	14.74	960	75	167	597	47	104
BENZENE	11.4	1.6	2.9	2.41	5.16	3.42	127	34	38	79	21	24
TOLUENE	20.7	0.9	3.2	4.38	2.90	3.77	233	19	43	145	12	27
C8+AROM	53.1	1.0	6.4	11.24	3.23	7.55	608	22	87	378	14	54
UNKNOWN	32.7	0.7	4.6	0.00	0.00	0.00	376	15	63	233	9	39
INDIVIDUAL COMPONENTS												
METHANE	29.1	3.3	7.2	6.16	10.65	8.49	399	86	117	248	53	73
ETHYLENE	38.7	11.0	16.0	8.19	35.48	18.87	464	251	228	289	156	142
ETHANE	4.1	0.4	1.2	0.87	1.29	1.42	53	10	18	33	6	11
ACETYLENE	30.7	3.1	6.0	6.50	10.00	7.08	342	66	79	213	41	49
C3 + C3=	19.7	3.5	7.4	4.17	11.29	8.73	236	80	105	147	50	66
C=C=C	0.8	0.0	0.3	0.17	0.00	0.35	9	0	4	6	0	3
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	4.5	0.2	0.9	0.95	0.65	1.06	56	5	13	35	3	8
B1 + IB	10.2	0.0	3.3	2.16	0.00	3.89	122	0	47	76	0	29
NC4 +B=1=3	19.2	1.8	2.9	4.06	5.81	3.42	239	43	43	148	26	27
TBUTENE-2	3.0	0.2	0.6	0.63	0.65	0.71	36	5	9	22	3	5
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	2.6	0.1	0.6	0.55	0.32	0.71	31	2	9	19	1	5
B=1=2	0.1	0.0	0.0	0.02	0.00	0.00	1	0	0	1	0	0
3MB1	0.8	0.1	0.2	0.17	0.32	0.24	10	2	3	6	1	2
ISOPENTANE	19.6	0.3	2.4	4.15	0.97	2.83	242	7	35	150	4	22
PENTENE-1	1.3	0.0	0.2	0.28	0.00	0.24	16	0	3	10	0	2
2MBUT-1	2.8	0.0	0.3	0.59	0.00	0.35	34	0	4	21	0	3
NPENTANE	4.0	0.2	0.6	0.85	0.65	0.71	49	5	9	31	3	5
2MB=1=3	0.6	0.0	0.0	0.13	0.00	0.00	7	0	0	4	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110401
DATE RUN: 01 19 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-83010105 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	3.3	0.1	0.3	0.70	0.32	0.35	40	2	4	25	1	3
CISPENT-2	1.8	0.0	0.2	0.38	0.00	0.24	22	0	3	13	0	2
2MBUT-2	5.4	0.1	0.6	1.14	0.32	0.71	65	2	9	40	1	5
22MBUTANE	0.2	0.0	0.0	0.04	0.00	0.00	2	0	0	2	0	0
CYPENTENE	0.8	0.0	0.1	0.17	0.00	0.12	9	0	1	6	0	1
3MPENTLNE	0.6	0.0	0.1	0.13	0.00	0.12	7	0	1	4	0	1
CYPENTANE	0.5	0.0	0.1	0.11	0.00	0.12	6	0	1	4	0	1
23MBUTANE	4.3	0.1	0.4	0.91	0.32	0.47	53	2	6	33	1	4
2MPENTANE	11.1	1.1	1.1	2.35	3.55	1.30	136	26	16	85	16	10
3MPENTANE	5.8	0.1	1.0	1.23	0.32	1.18	71	2	15	44	1	9
HEXENE-1	2.4	0.1	0.4	0.51	0.32	0.47	29	2	6	18	1	4
N HEXANE	2.8	0.1	0.5	0.59	0.32	0.59	34	2	7	21	1	5
TC6=3,=2	3.4	0.0	0.5	0.72	0.00	0.59	41	0	7	25	0	4
CC6=3	1.0	0.0	0.2	0.21	0.00	0.24	12	0	3	7	0	2
2MPENTENE2	1.6	0.0	0.3	0.34	0.00	0.35	19	0	4	12	0	3
MCYP4JM2C5	4.6	0.0	0.7	0.97	0.00	0.83	55	0	10	34	0	6
24MPENTANE	7.9	0.1	0.9	1.67	0.32	1.06	97	2	13	60	1	8
BENZENE	11.4	1.6	2.9	2.41	5.16	3.42	127	34	38	79	21	24
CYHEXANE	1.1	0.0	0.3	0.23	0.00	0.35	13	0	4	8	0	3
2MC6+23MC5	21.4	0.2	1.9	4.53	0.65	2.24	262	5	28	163	3	17
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	4.2	0.0	0.4	0.89	0.00	0.47	51	0	6	32	0	4
224MPENTAN	33.2	0.4	3.2	7.03	1.29	3.77	406	9	46	252	6	29
NHEPTANE	4.2	0.0	0.3	0.89	0.00	0.35	51	0	4	32	0	3
MCYHEXANE	2.4	0.0	0.2	0.51	0.00	0.24	29	0	3	18	0	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	6.8	0.1	0.7	1.44	0.32	0.83	63	2	10	52	1	6
234MC5	9.2	0.1	0.8	1.95	0.32	0.94	112	2	12	70	1	7
TOLUENE	20.7	0.9	3.2	4.38	2.90	3.77	233	19	43	145	12	27
23MC6+4MC7	4.1	0.0	0.5	0.87	0.00	0.59	50	0	7	31	0	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110401
DATE RUN: 01 19 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-83010105 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	3.4	0.0	0.3	0.72	0.00	0.35	42	0	4	26	0	3
3MHEPTANE	3.6	0.0	0.3	0.76	0.00	0.35	44	0	4	27	0	3
25DMC6	3.4	0.0	0.3	0.72	0.00	0.35	41	0	4	26	0	3
N OCTANE	1.6	0.0	0.2	0.34	0.00	0.24	20	0	3	12	0	2
23DMC6	0.7	0.0	0.1	0.15	0.00	0.12	9	0	1	5	0	1
ETCYHEXANE	0.9	0.0	0.1	0.19	0.00	0.12	11	0	1	7	0	1
ET BENZENE	3.8	0.1	0.6	0.80	0.32	0.71	43	2	8	27	1	5
M+PXYLENE	14.8	0.4	2.1	3.13	1.29	2.48	168	9	28	104	5	18
2+4MC8	2.3	0.0	0.3	0.49	0.00	0.35	28	0	4	17	0	3
O XYLENE	6.4	0.2	0.8	1.35	0.65	0.94	73	4	11	45	3	7
N NONANE	2.4	0.0	0.3	0.51	0.00	0.35	29	0	4	18	0	3
IPRBENZENE	1.7	0.0	0.1	0.36	0.00	0.12	19	0	1	12	0	1
NPRBENZENE	1.0	0.0	0.1	0.21	0.00	0.12	11	0	1	7	0	1
1M3ETBENZ	6.0	0.1	0.8	1.27	0.32	0.94	69	2	11	43	1	7
135MEBENZ	2.3	0.1	0.3	0.49	0.32	0.35	26	2	4	16	1	3
1M2ETBENZ	2.7	0.0	0.3	0.57	0.00	0.35	31	0	4	19	0	3
124MBENZ	7.5	0.1	0.8	1.59	0.32	0.94	86	2	11	53	1	7
SBUBENZENE	0.8	0.0	0.1	0.17	0.00	0.12	9	0	1	6	0	1
N DECANE	0.4	0.0	0.0	0.08	0.00	0.00	5	0	0	3	0	0
123MBENZ	1.8	0.0	0.2	0.38	0.00	0.24	21	0	3	13	0	2
INDANE	0.3	0.0	0.0	0.06	0.00	0.00	3	0	0	2	0	0
13DEBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	1.6	0.0	0.1	0.34	0.00	0.12	18	0	1	11	0	1
1M3PRBENZ	2.4	0.0	0.1	0.51	0.00	0.12	28	0	1	17	0	1
UNKNOWNS	32.7	0.7	4.6	6.92	2.26	5.42	376	15	63	233	9	39

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110402
DATE RUN: 01 26 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-83010105 DRIVER: WARD FUEL: WINTER

TEST TEMPERATURE = 40

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	2367.7	55.8	120.3
GC PPMC	2452.5	58.8	96.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	93.5	3.6	8.3	3.81	6.12	8.62	1212	61	133	753	38	83
SATURATES	1176.4	7.1	24.1	47.97	12.07	25.03	13649	107	345	8483	67	215
OLEFINS	376.4	20.1	36.7	15.35	34.18	38.11	4265	297	513	2651	185	319
ACETYLENE	103.4	3.6	6.9	4.22	6.12	7.17	1087	49	90	676	31	56
NAPTHENES	61.7	0.4	1.4	2.52	0.68	1.45	699	6	20	435	4	12
AROMATICS	428.9	9.5	14.0	17.49	16.16	14.54	4564	132	184	2837	82	114
BENZENE	37.7	2.1	3.4	1.54	3.57	3.53	396	29	44	246	18	27
TOLUENE	100.3	1.6	3.5	4.09	2.72	3.63	1067	22	46	663	14	29
C8+AROM	290.9	5.8	7.1	11.86	9.86	7.37	3147	82	95	1956	51	59
UNKNOWN	212.2	14.5	4.9	0.00	0.00	0.00	2301	205	66	1430	127	41
INDIVIDUAL COMPONENTS												
METHANE	93.5	3.6	8.3	3.81	6.12	8.62	1212	61	133	753	38	83
ETHYLENE	81.1	12.0	18.8	3.31	20.41	19.52	919	177	263	571	110	163
ETHANE	7.2	0.5	1.5	0.29	0.85	1.56	87	8	22	54	5	14
ACETYLENE	103.4	3.6	6.9	4.22	6.12	7.17	1087	49	90	676	31	56
C3 + C3=	56.9	4.4	8.7	2.32	7.48	9.03	645	65	122	401	40	76
C=C=C	0.0	0.1	0.4	0.00	0.17	0.42	0	1	5	0	1	3
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	27.1	0.3	0.9	1.10	0.51	0.93	318	5	13	198	3	8
B1 + IB	32.0	1.8	3.7	1.30	3.06	3.84	363	27	52	225	17	32
NC4 +B=1=3	139.7	1.1	3.2	5.70	1.87	3.32	1640	17	46	1019	10	29
TBUTENE-2	17.3	0.3	0.6	0.71	0.51	0.62	196	4	8	122	3	5
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	15.6	0.2	0.7	0.64	0.34	0.73	177	3	10	110	2	6
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	5.2	0.1	0.2	0.21	0.17	0.21	59	1	3	37	1	2
ISOPENTANE	149.1	0.6	2.7	6.08	1.02	2.80	1738	9	39	1080	6	24
PENTENE-1	9.5	0.1	0.2	0.39	0.17	0.21	108	1	3	67	1	2
2MBUT-1	19.9	0.1	0.4	0.81	0.17	0.42	226	1	6	140	1	3
NPENTANE	28.4	0.2	0.6	1.16	0.34	0.62	331	3	9	206	2	5
2MB=1=3	3.1	0.0	0.0	0.13	0.00	0.00	34	0	0	21	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110402
DATE RUN: 01 26 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-83010105 DRIVER: WAHD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	23.9	0.1	0.4	0.97	0.17	0.42	271	1	6	168	1	3
CISPENT-2	12.8	0.1	0.2	0.52	0.17	0.21	145	1	3	90	1	2
2MBUT-2	37.6	0.2	0.7	1.53	0.34	0.73	426	3	10	265	2	6
22MBUTANE	1.3	0.0	0.0	0.05	0.00	0.00	15	0	0	9	0	0
CYPENTENE	5.0	0.1	0.1	0.20	0.17	0.10	55	1	1	34	1	1
3MPENTENE	3.9	0.0	0.1	0.16	0.00	0.10	44	0	1	27	0	1
CYPENTANE	3.3	0.0	0.1	0.13	0.00	0.10	37	0	1	23	0	1
23MBUTANE	29.4	0.2	0.4	1.20	0.34	0.42	341	3	6	212	2	4
2MPENTANE	69.4	0.5	1.1	2.83	0.85	1.14	805	8	16	500	5	10
3NPENTANE	40.4	0.2	2.1	1.65	0.34	2.18	469	3	30	291	2	19
HEXENE-1	13.9	0.3	0.6	0.57	0.51	0.62	158	4	8	98	3	5
N HEXANE	18.0	0.3	0.5	0.73	0.51	0.52	209	5	7	130	3	4
TC6=3,=2	20.7	0.2	0.5	0.84	0.34	0.52	235	3	7	146	2	4
CC6=3	6.8	0.0	0.2	0.28	0.00	0.21	77	0	3	48	0	2
2MPENTENE2	11.2	0.0	0.2	0.46	0.00	0.21	127	0	3	79	0	2
MCYP43M2C5	29.2	0.3	0.7	1.19	0.51	0.73	331	4	10	206	3	6
24MPENTANE	48.7	0.4	1.0	1.99	0.68	1.04	563	6	14	350	4	9
BENZENE	37.7	2.1	3.4	1.54	3.57	3.53	396	29	44	246	18	27
CYHEXANE	8.9	0.0	0.3	0.36	0.00	0.31	101	0	4	63	0	3
2MC6+23MC5	140.0	0.5	2.1	5.71	0.85	2.18	1619	8	30	1006	5	19
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	26.1	0.1	0.4	1.06	0.17	0.42	302	2	6	188	1	4
224MPENTAN	195.3	0.9	3.4	7.96	1.53	3.53	2253	14	48	1400	8	30
NHEPTANE	25.3	0.1	0.4	1.03	0.17	0.42	293	2	6	182	1	4
MCYHEXANE	14.4	0.1	0.2	0.59	0.17	0.21	163	1	3	101	1	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	43.7	0.2	0.6	1.78	0.34	0.62	504	3	9	313	2	5
234MC5	62.4	0.2	0.8	2.54	0.34	0.83	720	3	11	447	2	7
TOLUENE	100.3	1.6	3.5	4.09	2.72	3.63	1067	22	46	663	14	29
23MC6+4MC7	23.4	0.2	0.5	0.95	0.34	0.52	270	3	7	168	2	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110402
DATE RUN: 01 26 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-B3010105 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	19.1	0.1	0.3	0.78	0.17	0.31	220	2	4	137	1	3
3MHEPTANE	21.1	0.1	0.4	0.86	0.17	0.42	243	2	6	151	1	4
255MC6	20.1	0.1	0.3	0.82	0.17	0.31	231	2	4	144	1	3
N OCTANE	9.1	0.0	0.1	0.37	0.00	0.10	105	0	1	65	0	1
223MC6	3.1	0.0	0.1	0.13	0.00	0.10	36	0	1	22	0	1
ETCYHEXANE	5.9	0.0	0.1	0.24	0.00	0.10	67	0	1	42	0	1
ET BENZENE	20.3	0.3	0.7	0.83	0.51	0.73	218	4	9	135	3	6
M+PXYLENE	76.9	1.5	2.4	3.14	2.55	2.49	824	21	32	512	13	20
2+4MC8	12.3	0.1	0.3	0.50	0.17	0.31	142	2	4	88	1	3
O XYLENE	32.7	0.6	0.9	1.33	1.02	0.93	351	8	12	218	5	7
N NONANE	14.6	0.2	0.4	0.60	0.34	0.42	168	3	6	104	2	4
IPRBENZENE	10.2	0.1	0.2	0.42	0.17	0.21	110	1	3	68	1	2
NPRBENZENE	6.3	0.1	0.1	0.26	0.17	0.10	68	1	1	42	1	1
1M3ETBENZ	32.5	0.7	0.9	1.33	1.19	0.93	351	10	12	218	6	7
135MEBENZ	12.7	0.3	0.3	0.52	0.51	0.31	137	4	4	85	3	2
1M2ETBENZ	16.8	0.2	0.3	0.69	0.34	0.31	181	3	4	113	2	2
124MBENZ	39.8	1.2	0.9	1.62	2.04	0.93	429	17	12	267	10	7
SBUBENZENE	4.8	0.2	0.0	0.20	0.34	0.00	52	3	0	32	2	0
N DECANE	2.1	0.0	0.0	0.09	0.00	0.00	24	0	0	15	0	0
123MBENZ	10.1	0.3	0.2	0.41	0.51	0.21	109	4	3	68	3	2
INDANE	3.3	0.0	0.0	0.13	0.00	0.00	35	0	0	22	0	0
13EBENZENE	2.2	0.0	0.0	0.09	0.00	0.00	24	0	0	15	0	0
NBUBENZENE	9.5	0.1	0.1	0.39	0.17	0.10	103	1	1	64	1	1
1M3PRBENZ	12.8	0.2	0.1	0.52	0.34	0.10	139	3	1	86	2	1
UNKNOWNS	212.2	14.5	4.9	8.65	24.66	5.09	2301	205	66	1430	127	41

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110601
DATE RUN: 01 05 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-63010105 DRIVEN: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 60

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	364.5	40.5	102.3
GC PPMC	341.1	16.9	77.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	22.6	2.6	7.0	6.63	15.38	9.06	357	125	125	222	77	78
SATURATES	113.8	2.2	18.1	33.36	13.02	23.42	1608	94	290	999	59	180
OLEFINS	78.4	7.7	28.8	22.98	45.56	36.22	1082	322	438	672	208	272
ACETYLENE	22.2	1.7	5.8	6.51	10.06	7.50	284	66	84	177	41	52
NAPTHENES	4.9	0.0	0.8	1.44	0.00	1.03	68	0	13	42	0	8
AROMATICS	81.1	2.4	15.3	23.78	14.20	19.79	1051	94	225	653	59	140
BENZENE	11.0	1.0	3.6	3.22	5.92	4.66	141	39	52	88	24	32
TOLUENE	24.4	0.8	4.7	7.15	4.73	6.08	316	31	69	196	20	43
C8+AROM	45.7	0.6	7.0	13.40	3.55	9.06	602	24	104	374	15	65
UNKNOWN	18.1	0.3	2.3	0.00	0.00	0.00	239	12	34	149	7	21
INDIVIDUAL COMPONENTS												
METHANE	22.6	2.6	7.0	6.63	15.38	9.06	357	125	125	222	77	78
ETHYLENE	37.6	5.5	15.9	11.02	32.54	20.57	519	230	249	322	143	155
ETHANE	3.5	0.1	1.2	1.03	0.59	1.55	52	4	20	32	3	12
ACETYLENE	22.2	1.7	5.8	6.51	10.06	7.50	284	66	84	177	41	52
C3 + C3=	17.5	1.5	6.6	5.13	8.88	8.54	241	63	103	150	39	64
C=C=C	0.8	0.0	0.0	0.23	0.00	0.00	11	0	0	7	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	2.0	0.0	0.4	0.59	0.00	0.52	29	0	6	18	0	4
B1 + I8	8.1	0.4	2.6	2.37	2.37	3.36	112	17	41	69	10	25
NC4 +B=1=3	12.9	0.5	2.6	3.78	2.96	3.36	184	22	42	115	13	26
TBUTENE-2	1.6	0.2	0.4	0.47	1.18	0.52	22	8	6	14	5	4
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.3	0.1	0.3	0.38	0.59	0.39	18	4	5	11	3	3
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.6	0.0	0.1	0.18	0.00	0.13	8	0	2	5	0	1
ISOPENTANE	9.6	0.2	1.6	2.81	1.18	2.07	136	9	26	85	5	16
PENTENE-1	0.5	0.0	0.1	0.15	0.00	0.13	7	0	2	4	0	1
2MBUT-1	1.1	0.0	0.2	0.32	0.00	0.26	15	0	3	9	0	2
NPENTANE	1.7	0.1	0.4	0.50	0.59	0.52	24	4	6	15	3	4
2MB=1=3	0.5	0.0	0.0	0.15	0.00	0.00	7	0	0	4	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110601
DATE RUN: 01 05 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-63010105 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	1.3	0.0	0.2	0.38	0.00	0.26	18	0	3	11	0	2
CISPENT-2	0.6	0.0	0.1	0.18	0.00	0.13	8	0	2	5	0	1
2MBUT-2	2.3	0.0	0.4	0.67	0.00	0.52	32	0	6	20	0	4
22MBUTANE	0.2	0.1	0.1	0.06	0.59	0.13	3	4	2	2	3	1
CYPENTENE	0.3	0.0	0.1	0.09	0.00	0.13	4	0	2	3	0	1
3MPENTENE	0.3	0.0	0.0	0.09	0.00	0.00	4	0	0	3	0	0
CYPENTANE	0.3	0.0	0.1	0.09	0.00	0.13	4	0	2	3	0	1
23MBUTANE	2.0	0.1	0.3	0.59	0.59	0.39	28	4	5	18	3	3
2MPENTANE	5.3	0.4	0.6	1.55	2.37	0.78	75	17	10	47	11	6
3MPENTANE	2.8	0.1	0.8	0.82	0.59	1.03	40	4	13	25	3	8
HEXENE-1	1.2	0.0	0.3	0.35	0.00	0.39	17	0	5	10	0	3
N HEXANE	1.9	0.1	0.6	0.56	0.59	0.78	27	4	10	17	3	6
TC6=3,=2	1.9	0.0	0.6	0.56	0.00	0.78	26	0	9	16	0	6
CC6=3	0.4	0.0	0.1	0.12	0.00	0.13	6	0	2	3	0	1
2MPENTENE2	0.5	0.0	0.0	0.15	0.00	0.00	7	0	0	4	0	0
MCYP43M2C5	2.3	0.0	0.4	0.67	0.00	0.52	32	0	6	20	0	4
24MPENTANE	4.7	0.0	0.7	1.38	0.00	0.91	66	0	11	41	0	7
BENZENE	11.0	1.0	3.6	3.22	5.92	4.66	141	39	52	88	24	32
CYHEXANE	0.5	0.0	0.1	0.15	0.00	0.13	7	0	2	4	0	1
2MC6+23MC5	10.3	0.1	1.3	3.02	0.59	1.68	145	4	21	90	3	13
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.4	0.0	0.4	1.00	0.00	0.52	48	0	6	30	0	4
224MPENTAN	21.2	0.2	2.7	6.22	1.18	3.49	298	9	43	185	5	27
NHEPTANE	3.3	0.0	0.4	0.97	0.00	0.52	46	0	6	29	0	4
MCYHEXANE	1.0	0.0	0.1	0.29	0.00	0.13	14	0	2	9	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	4.7	0.1	0.6	1.38	0.59	0.78	66	4	10	41	3	6
234MC5	5.4	0.0	0.6	1.58	0.00	0.78	76	0	10	47	0	6
TOLUENE	24.4	0.8	4.7	7.15	4.73	6.08	316	31	69	196	20	43
23MC6+4MC7	3.0	0.1	0.5	0.88	0.59	0.65	42	4	8	26	3	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110601
DATE RUN: 01 05 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-83010105 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG 1	2	3		BAG 1	2	3		BAG 1	2	3		BAG 1	2	3	
34MHEXANE	3.4	0.0	0.5		1.00	0.00	0.65		48	0	8		30	0	5	
3MHEPTANE	3.1	0.0	0.4		0.91	0.00	0.52		44	0	6		27	0	4	
255MC6	3.2	0.0	0.4		0.94	0.00	0.52		45	0	6		28	0	4	
N OCTANE	1.9	0.0	0.2		0.56	0.00	0.26		27	0	3		17	0	2	
223MC6	0.4	0.0	0.1		0.12	0.00	0.13		6	0	2		3	0	1	
ETCYHEXANE	0.8	0.0	0.1		0.23	0.00	0.13		11	0	2		7	0	1	
ET BENZENE	4.1	0.1	0.8		1.20	0.59	1.03		54	4	12		33	2	7	
M+PXYLENE	15.0	0.4	2.5		4.40	2.37	3.23		196	16	37		122	10	23	
244MC8	2.0	0.0	0.4		0.59	0.00	0.52		28	0	6		17	0	4	
O XYLENE	6.9	0.1	1.0		2.02	0.59	1.29		90	4	15		56	2	9	
N NONANE	1.6	0.0	0.3		0.47	0.00	0.39		22	0	5		14	0	3	
IPRBENZENE	1.2	0.0	0.2		0.35	0.00	0.26		16	0	3		10	0	2	
NPRBENZENE	0.9	0.0	0.1		0.26	0.00	0.13		12	0	1		7	0	1	
1M3ETBENZ	4.8	0.0	0.7		1.41	0.00	0.91		63	0	10		39	0	6	
135MEBENZ	1.9	0.0	0.3		0.56	0.00	0.39		25	0	4		16	0	3	
1M2ETBENZ	1.7	0.0	0.3		0.50	0.00	0.39		22	0	4		14	0	3	
124MBENZ	5.8	0.0	0.8		1.70	0.00	1.03		76	0	12		47	0	7	
SBUBENZENE	0.6	0.0	0.1		0.18	0.00	0.13		8	0	1		5	0	1	
N DECANE	0.3	0.0	0.0		0.09	0.00	0.00		4	0	0		3	0	0	
123MBENZ	1.3	0.0	0.2		0.38	0.00	0.26		17	0	3		11	0	2	
INDANE	0.5	0.0	0.0		0.15	0.00	0.00		6	0	0		4	0	0	
13EBENZENE	0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0	
NBUBENZENE	0.3	0.0	0.0		0.09	0.00	0.00		4	0	0		2	0	0	
1M3PRBENZ	0.7	0.0	0.0		0.21	0.00	0.00		9	0	0		6	0	0	
UNKNOWNS	18.1	0.3	2.3		5.31	1.78	2.98		239	12	34		149	7	21	

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110602
DATE RUN: 01 18 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WH-83010105 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 60

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	435.2	49.8	135.6
GC PPMC	488.9	47.8	139.1

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	31.0	4.1	11.2	6.34	8.58	8.05	370	83	143	230	52	89
SATURATES	168.7	7.0	31.8	34.51	14.64	22.86	1804	127	364	1121	79	226
OLEFINS	93.8	22.9	48.3	19.19	47.91	34.72	979	405	539	609	252	335
ACETYLENE	31.4	3.9	10.0	6.42	8.16	7.19	304	64	104	189	40	64
NAPTHENES	7.3	0.0	1.6	1.49	0.00	1.15	76	0	18	47	0	11
AROMATICS	128.4	9.1	28.2	26.26	19.04	20.27	1259	151	296	783	94	184
BENZENE	14.6	2.8	6.2	2.99	5.86	4.46	141	46	64	88	29	40
TOLUENE	38.0	2.6	8.9	7.77	5.44	6.40	373	43	93	232	27	58
C8+AROM	75.8	3.7	13.1	15.50	7.74	9.42	756	62	140	470	39	87
UNKNOWN	28.3	0.8	8.0	0.00	0.00	0.00	283	14	85	176	8	53
INDIVIDUAL COMPONENTS												
METHANE	31.0	4.1	11.2	6.34	8.58	8.05	370	83	143	230	52	89
ETHYLENE	42.2	14.5	26.8	8.63	30.33	19.27	441	256	299	274	159	186
ETHANE	3.9	0.6	2.0	0.80	1.26	1.44	44	11	24	27	7	15
ACETYLENE	31.4	3.9	10.0	6.42	8.16	7.19	304	64	104	189	40	64
C3 + C3=	21.3	4.9	11.2	4.36	10.25	8.05	222	87	125	138	54	78
C=C=C	0.9	0.1	0.4	0.18	0.21	0.29	9	2	4	6	1	3
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	2.7	0.2	0.9	0.55	0.42	0.65	29	4	10	18	2	6
B1 + IB	10.6	2.0	4.9	2.17	4.18	3.52	111	35	55	69	22	34
NC4 +B=1=3	17.4	1.1	4.2	3.56	2.30	3.02	188	20	49	117	13	30
TBUTENE-2	1.8	0.3	0.6	0.37	0.63	0.43	19	5	7	12	3	4
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.6	0.2	0.6	0.33	0.42	0.43	17	4	7	10	2	4
B=1=2	0.1	0.0	0.0	0.02	0.00	0.00	1	0	0	1	0	0
3MB1	0.7	0.1	0.3	0.14	0.21	0.22	7	2	3	5	1	2
ISOPENTANE	14.3	0.5	2.9	2.92	1.05	2.08	154	9	33	95	6	21
PENTENE-1	0.9	0.1	0.2	0.18	0.21	0.14	9	2	2	6	1	1
2MBUT-1	1.8	0.1	0.4	0.37	0.21	0.29	19	2	4	12	1	3
NPENTANE	2.6	0.2	0.6	0.53	0.42	0.43	28	4	7	17	2	4
2MB=1=3	0.3	0.0	0.0	0.06	0.00	0.00	3	0	0	2	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110602
DATE RUN: 01 18 79
CAR: 1977 HUNDA CIVIC 49 STATE VIN: WB-83010105 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.7	0.1	0.4	0.35	0.21	0.29	18	2	4	11	1	3
CISPENT-2	0.9	0.0	0.2	0.18	0.00	0.14	9	0	2	6	0	1
2MBUT-2	3.2	0.2	0.7	0.65	0.42	0.50	33	4	8	21	2	5
22MBUTANE	0.5	0.0	0.0	0.10	0.00	0.00	5	0	0	3	0	0
CYPENTENE	0.4	0.0	0.1	0.08	0.00	0.07	4	0	1	3	0	1
3MPENTENE	0.4	0.0	0.1	0.08	0.00	0.07	4	0	1	3	0	1
CYPENTANE	0.4	0.0	0.1	0.08	0.00	0.07	4	0	1	3	0	1
23MBUTANE	3.4	0.1	0.6	0.70	0.21	0.43	36	2	7	23	1	4
2MPENTANE	8.0	1.3	1.0	1.64	2.72	0.72	86	24	11	53	15	7
3MPENTANE	4.2	0.4	1.2	0.86	0.84	0.86	45	7	14	28	5	9
HEXENE-1	1.8	0.2	0.4	0.37	0.42	0.29	19	4	4	12	2	3
N HEXANE	3.0	0.3	0.9	0.61	0.63	0.65	32	5	10	20	3	6
TC6=3,=2	1.9	0.0	0.5	0.39	0.00	0.36	20	0	6	12	0	3
CC6=3	0.5	0.0	0.2	0.10	0.00	0.14	5	0	2	3	0	1
2MPENTENE2	0.8	0.1	0.3	0.16	0.21	0.22	8	2	3	5	1	2
MCYP43M2C5	3.4	0.0	0.8	0.70	0.00	0.58	36	0	9	22	0	6
24MPENTANE	7.0	0.2	1.3	1.43	0.42	0.93	75	4	15	46	2	9
BENZENE	14.6	2.8	6.2	2.99	5.86	4.46	141	46	64	88	29	40
CYHEXANE	0.7	0.0	0.3	0.14	0.00	0.22	7	0	3	5	0	2
2MC6+23MC5	15.7	0.4	2.6	3.21	0.84	1.87	167	7	30	104	4	18
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	5.4	0.1	0.9	1.10	0.21	0.65	58	2	10	36	1	6
224MPENTAN	32.1	0.8	5.2	6.57	1.67	3.74	341	14	59	212	9	37
NHEPTANE	5.3	0.1	0.8	1.08	0.21	0.58	56	2	9	35	1	6
MCYHEXANE	1.4	0.0	0.2	0.29	0.00	0.14	15	0	2	9	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	7.3	0.2	1.1	1.49	0.42	0.79	78	4	13	48	2	8
234MC5	8.1	0.2	1.1	1.66	0.42	0.79	86	4	13	54	2	8
TOLUENE	38.0	2.6	8.9	7.77	5.44	6.40	373	43	93	232	27	58
23MC6+4MC7	4.3	0.0	0.8	0.88	0.00	0.58	46	0	9	28	0	6

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110602
DATE RUN: 01 18 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: VB-U3010105 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	5.3	0.1	0.8	1.08	0.21	0.58	56	2	9	35	1	6
3MHEPTANE	4.8	0.1	0.7	0.98	0.21	0.50	51	2	8	32	1	5
255MC6	4.3	0.1	0.6	0.88	0.21	0.43	46	2	7	28	1	4
N OCTANE	2.8	0.0	0.4	0.57	0.00	0.29	30	0	5	18	0	3
223MC6	0.6	0.0	0.1	0.12	0.00	0.07	6	0	1	4	0	1
ETCYHEXANE	1.4	0.0	0.2	0.29	0.00	0.14	15	0	2	9	0	1
ET BENZENE	6.4	0.4	1.5	1.31	0.84	1.08	63	7	16	39	4	10
M+PXYLENE	24.2	1.2	4.8	4.95	2.51	3.45	239	20	51	149	12	32
2+4MC8	3.2	0.0	0.6	0.65	0.00	0.43	34	0	7	21	0	4
O XYLENE	10.0	0.7	1.9	2.05	1.46	1.37	99	12	20	61	7	12
N NONANE	2.0	0.0	0.5	0.41	0.00	0.36	21	0	6	13	0	4
IPRBENZENE	1.9	0.1	0.3	0.39	0.21	0.22	19	2	3	12	1	2
NPRBENZENE	1.7	0.0	0.2	0.35	0.00	0.14	17	0	2	11	0	1
1M3ETBENZ	7.9	0.4	1.5	1.62	0.84	1.08	79	7	16	49	4	10
135MEBENZ	3.1	0.1	0.6	0.63	0.21	0.43	31	2	6	19	1	4
1M2ETBENZ	2.7	0.1	0.4	0.55	0.21	0.29	27	2	4	17	1	3
124MBENZ	9.9	0.5	1.3	2.02	1.05	0.93	98	8	14	61	5	9
SBUBENZENE	1.0	0.1	0.1	0.20	0.21	0.07	10	2	1	6	1	1
N DECANE	0.5	0.0	0.0	0.10	0.00	0.00	5	0	0	3	0	0
123MBENZ	2.4	0.1	0.3	0.49	0.21	0.22	24	2	3	15	1	2
INDANE	0.5	0.0	0.0	0.10	0.00	0.00	5	0	0	3	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	1.7	0.0	0.1	0.35	0.00	0.07	17	0	1	11	0	1
1M3PRBENZ	2.4	0.0	0.1	0.49	0.00	0.07	24	0	1	15	0	1
UNKNOWNS	28.3	0.8	8.0	5.79	1.67	5.75	283	14	85	176	8	53

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110701
DATE RUN: 01 08 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-83010105 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 70

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	312.9	47.3	139.4
GC PPMC	178.9	37.5	109.5

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	13.3	3.4	9.1	7.43	9.07	8.31	313	85	154	194	53	96
SATURATES	53.2	4.5	25.7	29.74	12.00	23.47	1120	101	390	696	63	242
OLEFINS	43.3	18.7	38.3	24.20	49.87	34.98	890	409	567	553	254	353
ACETYLENE	10.1	2.8	7.8	5.65	7.47	7.12	193	57	107	120	35	67
NAPTHENES	2.5	0.0	1.8	1.40	0.00	0.91	51	0	15	32	0	9
AROMATICS	45.7	6.9	21.6	25.54	18.40	19.73	882	142	301	548	88	187
BENZENE	6.4	2.3	5.4	3.58	6.13	4.93	122	47	74	76	29	46
TOLUENE	12.5	2.1	6.5	6.99	5.60	5.94	241	43	90	150	27	56
C8+AROM	26.8	2.5	9.7	14.98	6.67	8.86	526	52	137	327	32	85
UNKNOWN	10.8	1.2	6.0	0.00	0.00	0.00	212	25	85	132	16	53
INDIVIDUAL COMPONENTS												
METHANE	13.3	3.4	9.1	7.43	9.07	8.31	313	85	154	194	53	96
ETHYLENE	22.1	11.6	21.7	12.35	30.93	19.82	454	254	322	282	158	200
ETHANE	2.0	0.4	1.6	1.12	1.07	1.46	44	9	25	27	6	16
ACETYLENE	10.1	2.8	7.8	5.65	7.47	7.12	193	57	107	120	35	67
C3 + C3=	9.9	3.8	8.7	5.53	10.13	7.95	204	83	129	126	52	80
C=C=C	0.3	0.0	0.2	0.17	0.00	0.18	6	0	3	4	0	2
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.6	0.1	0.4	0.34	0.27	0.37	13	2	6	8	1	4
B1 + IB	5.0	2.3	3.8	2.79	6.13	3.47	103	50	56	64	31	35
NC4 +B=1=3	5.6	0.2	3.7	3.13	0.53	3.38	119	5	57	74	3	35
TBUTENE-2	0.8	0.3	0.5	0.45	0.80	0.46	16	7	7	10	4	5
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.5	0.2	0.4	0.28	0.53	0.37	10	4	6	6	3	4
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.1	0.2	0.11	0.27	0.18	4	2	3	3	1	2
ISOPENTANE	4.0	0.4	2.5	2.24	1.07	2.28	85	9	38	53	6	24
PENTENE-1	0.2	0.0	0.1	0.11	0.00	0.09	4	0	1	3	0	1
2MBUT-1	0.5	0.0	0.3	0.28	0.00	0.27	10	0	4	6	0	3
NPENTANE	0.8	0.3	0.5	0.45	0.80	0.46	17	7	8	11	4	5
2MB=1=3	0.2	0.0	0.0	0.11	0.00	0.00	4	0	0	2	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110701
DATE RUN: 01 08 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-83010105 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.6	0.1	0.3	0.34	0.27	0.27	12	2	4	8	1	3
CISPENT-2	0.2	0.0	0.1	0.11	0.00	0.09	4	0	1	3	0	1
2MBUT-2	1.0	0.2	0.6	0.56	0.53	0.55	21	4	9	13	3	6
22MBUTANE	0.1	0.0	0.0	0.06	0.00	0.00	2	0	0	1	0	0
CYPENTENE	0.1	0.0	0.1	0.06	0.00	0.09	2	0	1	1	0	1
3MPENTENE	0.0	0.0	0.1	0.00	0.00	0.09	0	0	1	0	0	1
CYPENTANE	0.2	0.0	0.1	0.11	0.00	0.09	4	0	1	3	0	1
23MBUTANE	1.0	0.0	0.5	0.56	0.00	0.46	21	0	8	13	0	5
2MPENTANE	2.6	0.9	0.9	1.45	2.40	0.82	55	20	14	34	13	8
3MPENTANE	1.4	0.2	0.4	0.78	0.53	0.37	29	4	6	18	3	4
HEXENE-1	0.4	0.1	0.4	0.22	0.27	0.37	6	2	6	5	1	4
N HEXANE	0.9	0.1	0.8	0.50	0.27	0.73	19	2	12	12	1	8
TC6=3,=2	0.9	0.0	0.6	0.50	0.00	0.55	19	0	9	11	0	6
CC6=3	0.2	0.0	0.1	0.11	0.00	0.09	4	0	1	3	0	1
2MPENTENE2	0.2	0.0	0.1	0.11	0.00	0.09	4	0	1	3	0	1
MCYP43M2C5	1.0	0.0	0.6	0.56	0.00	0.55	21	0	9	13	0	6
24MPENTANE	2.0	0.2	1.0	1.12	0.53	0.91	42	4	15	26	3	9
BENZENE	6.4	2.3	5.4	3.58	6.13	4.93	122	47	74	76	29	46
CYHEXANE	0.4	0.0	0.0	0.22	0.00	0.00	8	0	0	5	0	0
2MC6+23MC5	4.7	0.3	2.1	2.63	0.80	1.92	99	7	32	61	4	20
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.6	0.1	0.7	0.89	0.27	0.64	34	2	11	21	1	7
224MPENTAN	9.7	0.7	4.2	5.42	1.87	3.84	203	16	63	126	10	39
NHEPTANE	1.6	0.1	0.6	0.89	0.27	0.55	34	2	9	21	1	6
MCYHEXANE	0.5	0.0	0.2	0.28	0.00	0.18	10	0	3	6	0	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	2.3	0.1	0.9	1.29	0.27	0.82	48	2	14	30	1	8
234MC5	2.5	0.1	0.9	1.40	0.27	0.82	52	2	14	33	1	8
TOLUENE	12.5	2.1	6.5	6.99	5.60	5.94	241	43	90	150	27	56
23MC6+4MC7	1.5	0.0	0.7	0.84	0.00	0.64	31	0	11	20	0	7

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110701
DATE RUN: 01 08 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-83010105 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.7	0.1	0.7	0.95	0.27	0.64	36	2	11	22	1	7
3MHEPTANE	1.5	0.1	0.6	0.84	0.27	0.55	31	2	9	20	1	6
255MC6	1.6	0.1	0.6	0.89	0.27	0.55	33	2	9	21	1	6
N OCTANE	0.9	0.0	0.3	0.50	0.00	0.27	19	0	5	12	0	3
223MC6	0.2	0.0	0.1	0.11	0.00	0.09	4	0	2	3	0	1
ETCYHEXANE	0.4	0.0	0.1	0.22	0.00	0.09	8	0	1	5	0	1
ET BENZENE	2.3	0.3	1.1	1.29	0.80	1.00	45	6	15	28	4	10
M+PXYLENE	8.5	0.9	3.4	4.75	2.40	3.11	165	19	48	103	12	30
2+4MC8	1.2	0.0	0.5	0.67	0.00	0.46	25	0	8	16	0	5
O XYLENE	3.8	0.5	1.3	2.12	1.33	1.19	74	10	18	46	6	11
N NONANE	1.0	0.0	0.4	0.56	0.00	0.37	21	0	6	13	0	4
IPRBENZENE	0.7	0.0	0.2	0.39	0.00	0.18	14	0	3	9	0	2
NPRBENZENE	0.5	0.0	0.2	0.28	0.00	0.18	10	0	3	6	0	2
1M3ETBENZ	3.1	0.2	1.1	1.73	0.53	1.00	61	4	16	38	3	10
135MEBENZ	1.3	0.1	0.4	0.73	0.27	0.37	25	2	6	16	1	4
1M2ETBENZ	1.1	0.1	0.4	0.61	0.27	0.37	22	2	6	13	1	4
124MBENZ	3.7	0.2	1.2	2.07	0.53	1.10	72	4	17	45	3	11
SBUBENZENE	0.4	0.1	0.1	0.22	0.27	0.09	8	2	1	5	1	1
N DECANE	0.2	0.0	0.1	0.11	0.00	0.09	4	0	2	3	0	1
123MBENZ	0.8	0.1	0.3	0.45	0.27	0.27	16	2	4	10	1	3
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13DEBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.2	0.0	0.0	0.11	0.00	0.00	4	0	0	2	0	0
1M3PRBENZ	0.4	0.0	0.0	0.22	0.00	0.00	8	0	0	5	0	0
UNKNOWNS	10.8	1.2	6.0	6.04	3.20	5.48	212	25	85	132	16	53

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110702
DATE RUN: 01 17 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-83010105 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 70

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	308.5	50.2	116.4
GC PPMC	286.2	39.5	98.2

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	19.6	4.1	8.1	6.85	10.38	8.25	278	98	123	173	61	76
SATURATES	82.7	5.7	25.4	28.90	14.43	25.87	1049	122	346	652	76	215
OLEFINS	64.6	17.6	31.8	22.57	44.56	32.38	800	369	423	497	229	263
ACETYLENE	17.1	3.3	6.1	5.97	8.35	6.21	197	64	75	122	40	47
NAPTHENES	3.6	0.0	1.2	1.26	0.00	1.22	45	0	16	28	0	10
AROMATICS	79.0	7.0	21.6	27.60	17.72	22.00	919	138	269	571	86	167
BENZENE	10.0	2.3	4.3	3.49	5.82	4.38	115	45	53	71	28	33
TOLUENE	21.9	2.3	6.7	7.65	5.82	6.82	255	45	84	158	28	52
C6+AROM	47.1	2.4	10.6	16.46	6.08	10.79	557	48	134	346	30	84
UNKNOWN	19.6	1.8	4.0	0.00	0.00	0.00	232	36	51	144	22	32
INDIVIDUAL COMPONENTS												
METHANE	19.6	4.1	8.1	6.85	10.38	8.25	278	98	123	173	61	76
ETHYLENE	30.5	10.9	16.3	10.66	27.60	16.60	378	229	217	235	142	135
ETHANE	2.9	0.4	1.2	1.01	1.01	1.22	39	9	17	24	6	11
ACETYLENE	17.1	3.3	6.1	5.97	8.35	6.21	197	64	75	122	40	47
C3 + C3=	16.0	3.8	7.8	5.59	9.62	7.94	198	80	104	123	50	64
C=C=C	0.7	0.0	0.3	0.24	0.00	0.31	8	0	4	5	0	2
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.6	0.0	0.6	0.56	0.00	0.61	21	0	8	13	0	5
B1 + IB	7.9	1.5	3.5	2.76	3.80	3.56	98	31	47	61	20	29
NC4 +B=1=3	8.2	1.0	3.3	2.87	2.53	3.36	105	22	45	65	13	28
TBUTENE-2	1.1	0.2	0.5	0.38	0.51	0.51	14	4	7	8	3	4
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.1	0.1	0.5	0.38	0.25	0.51	14	2	7	8	1	4
B=1=2	0.1	0.0	0.0	0.03	0.00	0.00	1	0	0	1	0	0
3MB1	0.4	0.1	0.2	0.14	0.25	0.20	5	2	3	3	1	2
ISOPENTANE	6.2	0.5	2.3	2.17	1.27	2.34	79	11	31	49	7	20
PENTENE-1	0.4	0.0	0.2	0.14	0.00	0.20	5	0	3	3	0	2
2MBUT-1	0.9	0.1	0.3	0.31	0.25	0.31	11	2	4	7	1	2
NPENTANE	1.2	0.2	0.5	0.42	0.51	0.51	15	4	7	10	3	4
2MB=1=3	0.1	0.0	0.0	0.03	0.00	0.00	1	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110702
DATE RUN: 01 17 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-H3010105 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.8	0.1	0.3	0.28	0.25	0.31	10	2	4	6	1	2
CISPENT-2	0.4	0.0	0.1	0.14	0.00	0.10	5	0	1	3	0	1
2MBUT-2	1.4	0.2	0.6	0.49	0.51	0.61	17	4	8	11	3	5
22MBUTANE	0.2	0.0	0.1	0.07	0.00	0.10	3	0	1	2	0	1
CYPENTENE	0.2	0.0	0.1	0.07	0.00	0.10	2	0	1	1	0	1
3MPENTENE	0.2	0.1	0.1	0.07	0.25	0.10	2	2	1	2	1	1
CYPENTANE	0.1	0.0	0.0	0.03	0.00	0.00	1	0	0	1	0	0
23MBUTANE	1.7	0.1	0.5	0.59	0.25	0.51	22	2	7	13	1	4
2MPENTANE	2.7	1.0	1.3	0.94	2.53	1.32	34	21	18	21	13	11
3MPENTANE	2.1	0.3	0.9	0.73	0.76	0.92	27	6	12	17	4	8
HEXENE-1	0.7	0.1	0.3	0.24	0.25	0.31	9	2	4	5	1	2
N HEXANE	1.5	0.2	0.6	0.52	0.51	0.61	19	4	8	12	3	5
TC6=3,=2	1.0	0.3	0.4	0.35	0.76	0.41	12	6	5	8	4	3
CC6=3	0.3	0.0	0.1	0.10	0.00	0.10	4	0	1	2	0	1
2MPENTENE2	0.4	0.1	0.2	0.14	0.25	0.20	5	2	3	3	1	2
MCYP43M2C5	1.6	0.0	0.6	0.56	0.00	0.61	20	0	8	12	0	5
24MPENTANE	3.3	0.2	1.1	1.15	0.51	1.12	42	4	15	26	3	9
BENZENE	10.0	2.3	4.3	3.49	5.82	4.38	115	45	53	71	28	33
CYHEXANE	0.5	0.0	0.3	0.17	0.00	0.31	6	0	4	4	0	2
2MC6+23MC5	7.3	0.3	2.0	2.55	0.76	2.04	92	6	27	57	4	17
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.5	0.1	0.7	0.87	0.25	0.71	32	2	9	20	1	6
224MPENTAN	15.4	0.8	4.1	5.38	2.03	4.18	194	17	55	121	11	34
NHEPTANE	2.5	0.1	0.6	0.87	0.25	0.61	32	2	8	20	1	5
MCYHEXANE	0.7	0.0	0.2	0.24	0.00	0.20	9	0	3	5	0	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	3.8	0.1	0.9	1.33	0.25	0.92	48	2	12	30	1	8
234MC5	4.1	0.1	0.9	1.43	0.25	0.92	52	2	12	32	1	8
TOLUENE	21.9	2.3	6.7	7.65	5.82	6.82	255	45	84	158	28	52
23MC6+4MC7	2.4	0.0	0.7	0.84	0.00	0.71	30	0	9	19	0	6

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110702
DATE RUN: 01 17 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-03010105 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.8	0.1	0.7	0.98	0.25	0.71	35	2	9	22	1	6
3MHEPTANE	2.5	0.1	0.6	0.87	0.25	0.61	32	2	8	20	1	5
255MC6	2.2	0.1	0.5	0.77	0.25	0.51	28	2	7	17	1	4
N OCTANE	1.6	0.0	0.3	0.56	0.00	0.31	20	0	4	13	0	3
223MC6	0.3	0.0	0.1	0.10	0.00	0.10	4	0	1	2	0	1
ETCYHEXANE	0.7	0.0	0.1	0.24	0.00	0.10	9	0	1	5	0	1
ET BENZENE	4.1	0.3	1.1	1.43	0.76	1.12	48	6	14	30	4	9
M+PXYLENE	15.3	1.0	3.7	5.35	2.53	3.77	179	20	47	111	12	29
2+4MC8	2.0	0.0	0.5	0.70	0.00	0.51	25	0	7	16	0	4
O XYLENE	6.4	0.6	1.6	2.24	1.52	1.63	75	12	20	47	7	12
N NONANE	1.4	0.0	0.4	0.49	0.00	0.41	18	0	5	11	0	3
IPRBENZENE	1.2	0.0	0.2	0.42	0.00	0.20	14	0	3	9	0	2
NPRBENZENE	1.1	0.0	0.2	0.38	0.00	0.20	13	0	3	8	0	2
1M3ETBENZ	5.4	0.3	1.2	1.89	0.76	1.22	64	6	15	40	4	9
135MEBENZ	2.1	0.1	0.5	0.73	0.25	0.51	25	2	6	15	1	4
1M2ETBENZ	1.7	0.1	0.3	0.59	0.25	0.31	20	2	4	12	1	2
124MBENZ	6.5	0.0	1.2	2.27	0.00	1.22	77	0	15	48	0	9
SBUBENZENE	0.6	0.0	0.1	0.21	0.00	0.10	7	0	1	4	0	1
N DECANE	0.3	0.0	0.0	0.10	0.00	0.00	4	0	0	2	0	0
123MBENZ	1.5	0.0	0.3	0.52	0.00	0.31	18	0	4	11	0	2
INDANE	0.1	0.0	0.0	0.03	0.00	0.00	1	0	0	1	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.3	0.0	0.1	0.10	0.00	0.10	4	0	1	2	0	1
1M3PRBENZ	0.8	0.0	0.1	0.28	0.00	0.10	9	0	1	6	0	1
UNKNOWNS	19.6	1.8	4.0	6.85	4.56	4.07	232	36	51	144	22	32

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110801
DATE RUN: 01 09 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-H3010105 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	235.6	47.4	123.3
GC PPMC	214.1	32.1	96.9

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	17.0	3.2	7.7	7.94	9.97	7.95	251	93	130	156	58	81
SATURATES	56.1	4.9	25.5	26.20	15.26	26.32	742	128	385	461	79	239
OLEFINS	60.1	13.6	32.0	28.07	42.37	33.02	776	346	472	482	215	293
ACETYLENE	15.5	3.3	5.7	7.24	10.28	5.88	186	78	78	115	48	48
NAPTHENES	2.5	0.0	1.1	1.17	0.00	1.14	32	0	16	20	0	10
AROMATICS	53.2	6.2	20.8	24.85	19.31	21.47	645	148	288	401	92	179
BENZENE	8.4	2.0	4.1	3.92	6.23	4.23	101	47	56	63	29	35
TOLUENE	14.9	1.9	6.5	6.96	5.92	6.71	181	45	90	112	28	56
C8+AROM	29.9	2.3	10.2	13.97	7.17	10.53	369	56	144	229	35	89
UNKNOWN	9.7	0.9	4.1	0.00	0.00	0.00	120	22	58	74	14	36
INDIVIDUAL COMPONENTS												
METHANE	17.0	3.2	7.7	7.94	9.97	7.95	251	93	130	156	58	81
ETHYLENE	30.0	10.9	16.2	14.01	33.96	16.72	387	277	239	241	172	149
ETHANE	2.7	0.7	1.3	1.26	2.18	1.34	37	19	21	23	12	13
ACETYLENE	15.5	3.3	5.7	7.24	10.28	5.88	186	78	78	115	48	48
C3 + C3=	14.3	2.3	8.0	6.68	7.17	8.26	185	59	118	115	36	73
C=C=C	0.5	0.3	0.2	0.23	0.93	0.21	6	7	3	4	5	2
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.1	0.2	0.5	0.51	0.62	0.52	15	5	8	9	3	5
B1 + IB	7.4	0.1	3.8	3.46	0.31	3.92	96	3	56	59	2	35
NC4 +B=1=3	6.8	0.4	3.4	3.18	1.25	3.51	91	11	52	57	7	32
TBUTENE-2	1.1	0.0	0.5	0.51	0.00	0.52	14	0	7	9	0	5
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.0	0.0	0.4	0.47	0.00	0.41	13	0	6	8	0	4
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.4	0.0	0.2	0.19	0.00	0.21	5	0	3	3	0	2
ISOPENTANE	4.2	0.2	2.4	1.96	0.62	2.48	56	5	36	35	3	23
PENTENE-1	0.3	0.0	0.1	0.14	0.00	0.10	4	0	1	2	0	1
2MBUT-1	0.7	0.0	0.3	0.33	0.00	0.31	9	0	4	6	0	3
NPENTANE	0.8	0.1	0.5	0.37	0.31	0.52	11	3	8	7	2	5
2MB=1=3	0.3	0.0	0.0	0.14	0.00	0.00	4	0	0	2	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110801
DATE RUN: 01 09 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: HD-83010105 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.6	0.0	0.3	0.28	0.00	0.31	8	0	4	5	0	3
CISPENT-2	0.3	0.0	0.1	0.14	0.00	0.10	4	0	1	2	0	1
2MBUT-2	1.1	0.0	0.6	0.51	0.00	0.62	14	0	9	9	0	6
22MBUTANL	0.1	0.0	0.1	0.05	0.00	0.10	1	0	2	1	0	1
CYPENTENE	0.1	0.0	0.1	0.05	0.00	0.10	1	0	1	1	0	1
3MPLNTENL	0.2	0.0	0.1	0.09	0.00	0.10	3	0	1	2	0	1
CYPENTANE	0.2	0.0	0.0	0.09	0.00	0.00	3	0	0	2	0	0
23MBUTANE	1.1	0.4	0.5	0.51	1.25	0.52	15	10	8	9	6	5
2MPENTANE	3.2	0.6	1.2	1.49	1.87	1.24	42	16	18	26	10	11
3MPENTANE	1.4	0.2	0.9	0.65	0.62	0.93	19	5	14	12	3	8
HEXENE-1	0.5	0.0	0.3	0.23	0.00	0.31	6	0	4	4	0	3
N HEXANE	0.9	0.1	0.7	0.42	0.31	0.72	12	3	11	7	2	7
TC6=3,=2	0.9	0.0	0.6	0.42	0.00	0.62	12	0	9	7	0	6
CC6=3	0.2	0.0	0.1	0.09	0.00	0.10	3	0	1	2	0	1
2MPENTENE2	0.2	0.0	0.1	0.09	0.00	0.10	3	0	1	2	0	1
MCYP43M2C5	1.1	0.0	0.6	0.51	0.00	0.62	14	0	9	9	0	6
24MPENTANE	2.1	0.2	1.0	0.98	0.62	1.03	28	5	15	17	3	9
BENZENE	8.4	2.0	4.1	3.92	6.23	4.23	101	47	56	63	29	35
CYHEXANE	0.4	0.0	0.2	0.19	0.00	0.21	5	0	3	3	0	2
2MC6+23MC5	4.6	0.3	2.0	2.15	0.93	2.06	61	8	30	38	5	19
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.5	0.1	0.7	0.70	0.31	0.72	20	3	11	12	2	7
224MPENTAN	9.6	0.7	4.1	4.48	2.18	4.23	126	18	62	78	11	38
NHEPTANE	1.5	0.1	0.6	0.70	0.31	0.62	20	3	9	12	2	6
MCYHEXANE	0.4	0.0	0.2	0.19	0.00	0.21	5	0	3	3	0	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	2.3	0.1	0.9	1.07	0.31	0.93	30	3	14	19	2	8
234MC5	2.4	0.1	0.9	1.12	0.31	0.93	32	3	14	20	2	8
TOLUENE	14.9	1.9	6.5	6.96	5.92	6.71	181	45	90	112	28	56
23MC6+4MC7	1.5	0.1	0.7	0.70	0.31	0.72	20	3	11	12	2	7

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110801
DATE RUN: 01 09 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-83010105 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.7	0.0	0.7	0.79	0.00	0.72	22	0	11	14	0	7
3MHEPTANE	1.5	0.1	0.6	0.70	0.31	0.62	20	3	9	12	2	6
255MC6	1.6	0.1	0.5	0.75	0.31	0.52	21	3	7	13	2	5
N OCTANE	0.9	0.0	0.3	0.42	0.00	0.31	12	0	5	7	0	3
223MC6	0.2	0.0	0.1	0.09	0.00	0.10	3	0	1	2	0	1
ETCYHEXANE	0.4	0.0	0.1	0.19	0.00	0.10	5	0	1	3	0	1
ET BENZENE	2.7	0.2	1.1	1.26	0.62	1.14	33	5	15	21	3	10
M+PXYLENE	9.8	0.9	3.6	4.58	2.80	3.72	120	22	50	74	13	31
2+4MC8	1.2	0.1	0.4	0.56	0.31	0.41	16	3	6	10	2	4
O XYLENE	4.6	0.5	1.4	2.15	1.56	1.44	56	12	20	35	7	12
N NONANE	1.0	0.0	0.4	0.47	0.00	0.41	13	0	6	8	0	4
IPRBENZENE	0.7	0.0	0.2	0.33	0.00	0.21	9	0	3	5	0	2
NPRBENZENE	0.6	0.0	0.2	0.28	0.00	0.21	7	0	3	5	0	2
1M3ETBENZ	3.4	0.2	1.1	1.59	0.62	1.14	42	5	15	26	3	10
135MEBENZ	1.3	0.2	0.4	0.61	0.62	0.41	16	5	6	10	3	3
1M2ETBENZ	1.0	0.1	0.4	0.47	0.31	0.41	12	2	6	8	2	3
124MBENZ	4.0	0.2	1.3	1.87	0.62	1.34	49	5	18	31	3	11
SBUBENZENE	0.4	0.0	0.1	0.19	0.00	0.10	5	0	1	3	0	1
N DECANE	0.2	0.0	0.1	0.09	0.00	0.10	3	0	1	2	0	1
123MBENZ	0.8	0.0	0.3	0.37	0.00	0.31	10	0	4	6	0	3
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.2	0.0	0.0	0.09	0.00	0.00	2	0	0	2	0	0
1M3PRBENZ	0.4	0.0	0.1	0.19	0.00	0.10	5	0	1	3	0	1
UNKNOWNS	9.7	0.9	4.1	4.53	2.80	4.23	120	22	58	74	14	36

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110802
DATE RUN: 01 16 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-83010105 DRIVER: WARD FUEL: SUMMER

TEST TEMPERATURE = 80

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	283.6	46.0	109.1
GC PPMC	249.6	35.8	94.7

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	19.8	3.3	7.7	7.93	9.22	8.13	299	83	117	186	51	73
SATURATES	65.7	5.2	21.8	26.32	14.53	23.02	888	117	296	552	73	184
OLEFINS	69.0	17.4	33.1	27.64	48.60	34.95	910	382	439	566	237	273
ACETYLENE	18.8	3.3	6.4	7.53	9.22	6.76	230	67	79	143	42	49
NAPTHENES	2.9	0.0	0.9	1.16	0.00	0.95	38	0	12	24	0	7
AROMATICS	61.0	6.6	20.3	24.44	18.44	21.44	756	136	253	470	85	157
BENZENE	9.9	2.2	4.1	3.97	6.15	4.33	121	45	50	75	28	31
TOLUENE	17.5	2.1	6.2	7.01	5.87	6.55	217	43	77	135	27	48
C8+AROM	33.6	2.3	10.0	13.46	6.42	10.56	423	48	126	263	30	79
UNKNOWN	12.4	0.0	4.5	0.00	0.00	0.88	157	0	57	97	0	35
INDIVIDUAL COMPONENTS												
METHANE	19.8	3.3	7.7	7.93	9.22	8.13	299	83	117	186	51	73
ETHYLENE	35.4	11.3	17.6	14.18	31.56	18.59	467	248	233	290	154	145
ETHANE	3.1	0.4	1.3	1.24	1.12	1.37	44	9	18	27	6	11
ACETYLENE	18.8	3.3	6.4	7.53	9.22	6.76	230	67	79	143	42	49
C3 + C3=	15.9	3.6	8.0	6.37	10.06	8.45	210	79	106	130	49	66
C=C=C	0.7	0.0	0.3	0.28	0.00	0.32	9	0	4	5	0	2
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.6	0.0	0.5	0.64	0.00	0.53	22	0	7	14	0	4
B1 + IB	7.8	1.4	3.6	3.13	3.91	3.80	103	31	48	64	19	30
NC4 +B=1=3	7.5	0.9	3.0	3.00	2.51	3.17	103	20	41	64	13	26
TBUTENE-2	1.1	0.2	0.5	0.44	0.56	0.53	15	4	7	9	3	4
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.1	0.1	0.5	0.44	0.28	0.53	15	2	7	9	1	4
B=1=2	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0
3MB1	0.4	0.1	0.2	0.16	0.28	0.21	5	2	3	3	1	2
ISOPENTANE	4.5	0.4	1.9	1.80	1.12	2.01	61	9	26	38	6	16
PENTENE-1	0.3	0.0	0.1	0.12	0.00	0.11	4	0	1	2	0	1
2MBUT-1	0.7	0.0	0.3	0.28	0.00	0.32	9	0	4	6	0	2
NPENTANE	0.9	0.2	0.4	0.36	0.56	0.42	12	5	5	8	3	3
2MB=1=3	0.3	0.0	0.0	0.12	0.00	0.00	4	0	0	2	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110802
DATE RUN: 01 16 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-63010105 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.7	0.1	0.2	0.28	0.28	0.21	9	2	3	6	1	2
CISPENT-2	0.3	0.0	0.1	0.12	0.00	0.11	4	0	1	2	0	1
2MBUT-2	1.2	0.1	0.5	0.48	0.28	0.53	16	2	7	10	1	4
22MBUTANE	0.3	0.0	0.0	0.12	0.00	0.00	4	0	0	3	0	0
CYPENTENE	0.2	0.0	0.1	0.08	0.00	0.11	3	0	1	2	0	1
3MPENTENE	0.3	0.1	0.1	0.12	0.28	0.11	4	2	1	2	1	1
CYPENTANE	0.2	0.0	0.0	0.08	0.00	0.00	3	0	0	2	0	0
23MBUTANE	1.1	0.1	0.4	0.44	0.28	0.42	15	2	5	9	1	3
2MPENTANE	3.1	0.9	1.3	1.24	2.51	1.37	42	20	18	26	13	11
3MPENTANE	1.6	0.3	0.8	0.64	0.84	0.84	22	7	11	13	4	7
HEXENE-1	0.9	0.2	0.3	0.36	0.56	0.32	12	4	4	7	3	2
N HEXANE	1.1	0.1	0.7	0.44	0.28	0.74	15	2	9	9	1	6
TC6=3,=2	1.1	0.0	0.4	0.44	0.00	0.42	15	0	5	9	0	3
CC6=3	0.2	0.0	0.1	0.08	0.00	0.11	3	0	1	2	0	1
2MPENTENE2	0.3	0.2	0.2	0.12	0.56	0.21	4	4	3	2	3	2
MCYP43M2C5	1.3	0.0	0.5	0.52	0.00	0.53	17	0	7	11	0	4
24MPENTANE	2.5	0.2	0.9	1.00	0.56	0.95	34	4	12	21	3	8
BENZENE	9.9	2.2	4.1	3.97	6.15	4.33	121	45	50	75	28	31
CYHEXANE	0.4	0.0	0.2	0.16	0.00	0.21	5	0	3	3	0	2
2MC6+23MC5	5.5	0.3	0.1	2.20	0.84	0.11	74	7	1	46	4	1
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.9	0.1	1.7	0.76	0.28	1.80	26	2	23	16	1	14
224MPENTAN	11.7	0.7	3.5	4.69	1.96	3.70	157	16	47	98	10	29
MHEPTANE	1.9	0.1	0.5	0.76	0.28	0.53	26	2	7	16	1	4
MCYHEXANE	0.5	0.0	0.1	0.20	0.00	0.11	7	0	1	4	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	2.8	0.1	0.7	1.12	0.28	0.74	38	2	9	23	1	6
234MC5	3.0	0.1	0.7	1.20	0.28	0.74	40	2	9	25	1	6
TOLUENE	17.5	2.1	6.2	7.01	5.87	6.55	217	43	77	135	27	48
23MC6+4MC7	1.8	0.1	0.6	0.72	0.28	0.63	24	2	8	15	1	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110802
DATE RUN: 01 16 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WH-83010105 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.0	0.0	0.6	0.60	0.00	0.63	27	0	8	17	0	5
3MHEPTANE	1.8	0.1	0.5	0.72	0.28	0.53	24	2	7	15	1	4
255MC6	1.9	0.1	0.4	0.76	0.28	0.42	25	2	5	16	1	3
N OCTANE	1.1	0.0	0.3	0.44	0.00	0.32	15	0	4	9	0	3
223MC6	0.2	0.0	0.1	0.08	0.00	0.11	3	0	1	2	0	1
ETCYHEXANE	0.5	0.0	0.1	0.20	0.00	0.11	7	0	1	4	0	1
ET BENZENE	3.2	0.3	1.0	1.28	0.84	1.06	40	6	13	25	4	8
M+PXYLENE	11.0	0.9	3.5	4.41	2.51	3.70	137	19	44	85	12	27
244MC8	1.4	0.0	0.4	0.56	0.00	0.42	19	0	5	12	0	3
O XYLENE	5.2	0.5	1.4	2.08	1.40	1.48	65	10	18	40	6	11
N NONANE	1.1	0.0	0.4	0.44	0.00	0.42	15	0	5	9	0	3
IPRBENZENE	0.8	0.0	0.2	0.32	0.00	0.21	10	0	3	6	0	2
NPRBENZENE	0.7	0.0	0.2	0.28	0.00	0.21	9	0	3	5	0	2
1M3ETBENZ	3.7	0.2	1.1	1.48	0.56	1.16	46	4	14	29	3	9
135MEBENZ	1.5	0.1	0.4	0.60	0.28	0.42	19	2	5	12	1	3
1M2ETBENZ	1.2	0.1	0.3	0.48	0.28	0.32	15	2	4	9	1	2
124MBENZ	4.3	0.2	1.2	1.72	0.56	1.27	54	4	15	34	3	9
SBUBENZENE	0.4	0.0	0.1	0.16	0.00	0.11	5	0	1	3	0	1
N DECANE	0.3	0.0	0.1	0.12	0.00	0.11	4	0	1	2	0	1
123MBENZ	0.9	0.0	0.3	0.36	0.00	0.32	11	0	4	7	0	2
INDANE	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.2	0.0	0.1	0.08	0.00	0.11	3	0	1	2	0	1
1M3PRBENZ	0.4	0.0	0.2	0.16	0.00	0.21	5	0	3	3	0	2
UNKNOWNS	12.4	0.0	4.5	4.97	0.00	4.75	157	0	57	97	0	35

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110901
DATE RUN: 01 10 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-H3010105 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	192.3	49.4	127.4
GC PPMC	103.7	39.8	107.4

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	14.5	3.6	8.4	13.98	9.05	7.82	342	89	132	213	55	82
SATURATES	21.4	6.6	29.3	20.64	16.58	27.28	452	146	412	281	90	256
OLEFINS	33.3	18.8	36.1	32.11	47.24	33.61	687	405	496	427	252	308
ACETYLENE	8.2	3.4	6.6	7.91	8.54	6.15	157	68	84	98	42	52
NAPTHENES	0.8	0.1	1.3	0.77	0.25	1.21	17	2	18	10	1	11
AROMATICS	22.3	6.8	21.6	21.50	17.09	20.11	432	138	279	269	86	173
BENZENE	4.8	2.3	4.4	4.63	5.78	4.10	92	46	56	57	29	35
TOLUENE	6.1	2.2	6.8	5.88	5.53	6.33	118	45	88	73	28	55
C8+AROM	11.4	2.3	10.4	10.99	5.78	9.68	225	47	136	140	29	85
UNKNOWN	3.2	0.5	4.1	0.00	0.00	0.00	63	10	54	39	6	34
INDIVIDUAL COMPONENTS												
METHANE	14.5	3.6	8.4	13.98	9.05	7.82	342	89	132	213	55	82
ETHYLENE	17.9	11.8	18.6	17.26	29.65	17.32	369	254	256	230	158	159
ETHANE	2.0	0.4	1.4	1.93	1.01	1.30	44	9	21	27	6	13
ACETYLENE	8.2	3.4	6.6	7.91	8.54	6.15	157	68	84	98	42	52
C3 + C3=	8.1	3.9	8.8	7.81	9.80	8.19	167	84	121	104	52	75
C=C=C	0.2	0.0	0.2	0.19	0.00	0.19	4	0	3	2	0	2
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.4	0.1	0.4	0.39	0.25	0.37	9	2	6	5	1	4
B1 + IB	3.7	1.6	3.9	3.57	4.02	3.63	76	34	54	47	21	33
NC4 +B=1=3	3.4	1.1	4.1	3.28	2.76	3.82	73	25	58	45	15	36
TBUTENE-2	0.6	0.3	0.6	0.58	0.75	0.56	12	6	8	8	4	5
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.4	0.2	0.4	0.39	0.50	0.37	8	4	5	5	3	3
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.1	0.2	0.19	0.25	0.19	4	2	3	3	1	2
ISOPENTANE	1.7	0.5	2.7	1.64	1.26	2.51	36	11	38	22	7	24
PENTENE-1	0.1	0.0	0.2	0.10	0.00	0.19	2	0	3	1	0	2
2MBUT-1	0.2	0.0	0.3	0.19	0.00	0.28	4	0	4	3	0	3
NPENTANE	0.5	0.3	0.6	0.48	0.75	0.56	11	7	8	7	4	5
2MB=1=3	0.2	0.0	0.0	0.19	0.00	0.00	4	0	0	2	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110901
DATE RUN: 01 10 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-83010105 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.3	0.1	0.3	0.29	0.25	0.28	6	2	4	4	1	3
CISPENT-2	0.1	0.0	0.2	0.10	0.00	0.19	2	0	3	1	0	2
2MBUT-2	0.5	0.2	0.7	0.48	0.50	0.65	10	4	10	6	3	6
22MBUTANE	0.0	0.1	0.5	0.00	0.25	0.47	0	2	7	0	1	4
CYPENTENE	0.1	0.0	0.1	0.10	0.00	0.09	2	0	1	1	0	1
3MPENTENE	0.0	0.0	0.1	0.00	0.00	0.09	0	0	1	0	0	1
CYPENTANE	0.1	0.0	0.1	0.10	0.00	0.09	2	0	1	1	0	1
23MBUTANE	0.4	0.1	0.5	0.39	0.25	0.47	8	2	7	5	1	4
2MPENTANE	0.9	1.0	1.1	0.87	2.51	1.02	19	22	15	12	14	10
3MPENTANE	0.6	0.4	1.1	0.58	1.01	1.02	13	9	15	8	5	10
HEXENE-1	0.2	0.2	0.5	0.19	0.50	0.47	4	4	7	3	3	4
N HEXANE	0.5	0.3	0.8	0.48	0.75	0.74	11	7	11	7	4	7
TC6=3,=2	0.4	0.3	0.7	0.39	0.75	0.65	8	6	10	5	4	6
CC6=3	0.1	0.0	0.2	0.10	0.00	0.19	2	0	3	1	0	2
2MPENTENE2	0.0	0.1	0.1	0.00	0.25	0.09	0	2	1	0	1	1
MCYP43M2C5	0.4	0.1	0.6	0.39	0.25	0.56	8	2	8	5	1	5
24MPENTANE	0.7	0.2	1.2	0.68	0.50	1.12	15	4	17	9	3	10
BENZENE	4.8	2.3	4.4	4.63	5.78	4.10	92	46	56	57	29	35
CYHEXANE	0.1	0.0	0.3	0.10	0.00	0.28	2	0	4	1	0	3
2MC6+23MC5	1.5	0.4	2.3	1.45	1.01	2.14	32	9	32	20	5	20
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.5	0.1	0.8	0.48	0.25	0.74	11	2	11	7	1	7
224MPENTAN	3.1	0.8	4.8	2.99	2.01	4.47	65	18	67	40	11	42
NHEPTANE	0.5	0.1	0.7	0.48	0.25	0.65	11	2	10	7	1	6
MCYHEXANE	0.1	0.0	0.2	0.10	0.00	0.19	2	0	3	1	0	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	0.6	0.2	1.0	0.58	0.50	0.93	13	4	14	8	3	9
234MC5	0.6	0.2	1.0	0.58	0.50	0.93	13	4	14	8	3	9
TOLUENE	6.1	2.2	6.8	5.88	5.53	6.33	118	45	88	73	28	55
23MC6+4MC7	0.6	0.0	0.8	0.58	0.00	0.74	13	0	11	8	0	7

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110901
DATE RUN: 01 10 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-03010105 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
34MHEXANE		0.5	0.1	0.7		0.48	0.25	0.65		11	2	10		7	1	6
3MHEPTANE		0.5	0.1	0.6		0.48	0.25	0.56		11	2	8		7	1	5
25DMC6		0.5	0.1	0.7		0.48	0.25	0.65		10	2	10		7	1	6
N OCTANE		0.2	0.0	0.3		0.19	0.00	0.28		4	0	4		3	0	3
223MC6		0.1	0.0	0.1		0.10	0.00	0.09		2	0	1		1	0	1
ETCYHEXANE		0.1	0.0	0.1		0.10	0.00	0.09		2	0	1		1	0	1
ET BENZENE		1.1	0.3	1.1		1.06	0.75	1.02		21	6	14		13	4	9
M+PXYLENE		3.8	0.9	3.6		3.66	2.26	3.35		74	18	47		46	11	29
2+4MC8		0.5	0.0	0.5		0.48	0.00	0.47		10	0	7		7	0	4
O XYLENE		1.7	0.5	1.5		1.64	1.26	1.40		33	10	20		21	6	12
N NONANE		0.5	0.0	0.5		0.48	0.00	0.47		10	0	7		7	0	4
IPRBENZENE		0.3	0.0	0.3		0.29	0.00	0.28		6	0	4		4	0	2
NPRBENZENE		0.2	0.0	0.2		0.19	0.00	0.19		4	0	3		2	0	2
1M3ETBENZ		1.3	0.2	1.1		1.25	0.50	1.02		26	4	14		16	3	9
135MEBENZ		0.5	0.1	0.4		0.48	0.25	0.37		10	2	5		6	1	3
1M2ETBENZ		0.4	0.1	0.4		0.39	0.25	0.37		8	2	5		5	1	3
124MBENZ		1.6	0.2	1.2		1.54	0.50	1.12		31	4	16		20	3	10
SBUBENZENE		0.1	0.0	0.1		0.10	0.00	0.09		2	0	1		1	0	1
N DECANE		0.1	0.0	0.1		0.10	0.00	0.09		2	0	1		1	0	1
123MBENZ		0.4	0.0	0.3		0.39	0.00	0.28		8	0	4		5	0	2
INDANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
13DEBENZENE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
NBUBENZENE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
1M3PRBENZ		0.0	0.0	0.2		0.00	0.00	0.19		0	0	3		0	0	2
UNKNOWNS		3.2	0.5	4.1		3.09	1.26	3.82		63	10	54		39	6	34

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110902
DATE RUN: 01 15 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-83010105 DRIVER: WARD FUEL: SUNNER

GAS CHROMATOGRAPHIC DATA FRUM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	182.9	48.6	112.7
GC PPMC	170.0	38.0	94.0

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	14.1	3.3	7.7	8.29	8.68	8.19	202	84	122	126	52	76
SATURATES	38.2	5.9	23.2	22.47	15.53	24.68	491	134	330	305	84	205
OLEFINS	50.1	17.9	33.0	29.47	47.11	35.11	628	398	459	391	248	285
ACETYLENE	11.5	2.8	5.9	6.76	7.37	6.28	134	58	76	83	36	47
NAPTHENES	1.8	0.2	1.0	1.06	0.53	1.06	23	4	14	14	3	9
AROMATICS	43.6	7.0	19.7	25.65	18.42	20.96	514	146	257	319	91	160
BENZENE	6.8	2.4	4.2	4.00	6.32	4.47	79	50	54	49	31	34
TOLUENE	12.0	2.1	6.2	7.06	5.53	6.60	141	44	81	88	27	50
C8+AROM	24.8	2.5	9.3	14.59	6.58	9.89	297	53	123	185	33	77
UNKNOWN	10.7	0.9	3.5	0.00	0.00	0.00	128	19	47	80	12	29
INDIVIDUAL COMPONENTS												
METHANE	14.1	3.3	7.7	8.29	8.68	8.19	202	84	122	126	52	76
ETHYLENE	24.5	11.4	17.6	14.41	30.00	18.72	307	254	245	191	158	152
ETHANE	2.2	0.3	1.3	1.29	0.79	1.38	30	7	19	18	4	12
ACETYLENE	11.5	2.8	5.9	6.76	7.37	6.28	134	58	76	83	36	47
C3 + C3=	11.7	3.8	7.9	6.88	10.00	8.40	147	85	110	91	53	68
C=C=C	0.4	0.0	0.2	0.24	0.00	0.21	5	0	3	3	0	2
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.5	0.0	0.4	0.29	0.00	0.43	6	0	6	4	0	4
B1 + IB	5.7	1.4	3.6	3.35	3.68	3.83	71	31	50	44	19	31
NC4 +B=1=3	4.8	1.0	3.1	2.82	2.63	3.30	62	23	45	39	14	28
TBUTENE-2	1.4	0.3	0.5	0.82	0.79	0.53	18	7	7	11	4	4
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.6	0.2	0.4	0.94	0.53	0.43	20	4	6	12	3	3
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.9	0.1	0.2	0.53	0.26	0.21	11	2	3	7	1	2
ISOPENTANE	3.3	0.4	2.1	1.94	1.05	2.23	43	9	30	26	6	19
PENTENE-1	0.3	0.0	0.2	0.18	0.00	0.21	4	0	3	2	0	2
2MBUT-1	0.5	0.0	0.3	0.29	0.00	0.32	6	0	4	4	0	3
NPENTANE	0.8	0.2	0.5	0.47	0.53	0.53	10	5	7	6	3	4
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110902
DATE RUN: 01 15 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-63010105 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.6	0.2	0.3	0.35	0.53	0.32	8	4	4	5	3	3
CISPENT-2	0.2	0.1	0.1	0.12	0.26	0.11	3	2	1	2	1	1
2MBUT-2	0.8	0.3	0.5	0.47	0.79	0.53	10	7	7	6	4	4
22MBUTANE	0.0	0.0	0.1	0.00	0.00	0.11	0	0	1	0	0	1
CYPENTENE	0.1	0.0	0.1	0.06	0.00	0.11	1	0	1	1	0	1
3MPENTENE	0.1	0.0	0.1	0.06	0.00	0.11	1	0	1	1	0	1
CYPENTANE	0.1	0.1	0.0	0.06	0.26	0.00	1	2	0	1	1	0
23MBUTANE	0.5	0.1	0.4	0.29	0.26	0.43	6	2	6	4	1	4
2MPENTANE	1.1	1.1	1.3	0.65	2.89	1.38	14	25	18	9	16	11
3MPENTANE	1.2	0.4	0.8	0.71	1.05	0.85	15	9	11	10	6	7
HEXENE-1	0.4	0.1	0.3	0.24	0.26	0.32	5	2	4	3	1	3
N HEXANE	0.9	0.3	0.7	0.53	0.79	0.74	12	7	10	7	4	6
TC6=3,=2	0.7	0.0	0.5	0.41	0.00	0.53	9	0	7	5	0	4
CC6=3	0.1	0.0	0.1	0.06	0.00	0.11	1	0	1	1	0	1
2MPENTENE2	0.1	0.0	0.1	0.06	0.00	0.11	1	0	1	1	0	1
MCYP43M2C5	0.8	0.1	0.5	0.47	0.26	0.53	10	2	7	6	1	4
24MPENTANE	1.5	0.2	0.9	0.88	0.53	0.96	19	5	13	12	3	8
BENZENE	6.8	2.4	4.2	4.00	6.32	4.47	79	50	54	49	31	34
CYHEXANE	0.3	0.0	0.2	0.18	0.00	0.21	4	0	3	2	0	2
2MC6+23MC5	3.0	0.4	1.8	1.76	1.05	1.91	38	9	26	24	6	16
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.0	0.1	0.6	0.59	0.26	0.64	13	2	9	8	1	5
224MPENTAN	6.3	0.8	3.6	3.71	2.11	3.83	80	18	51	50	11	32
NHEPTANE	1.0	0.1	0.6	0.59	0.26	0.64	13	2	9	8	1	5
MCYHEXANE	0.3	0.0	0.2	0.18	0.00	0.21	4	0	3	2	0	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.5	0.1	0.8	0.88	0.26	0.85	19	2	11	12	1	7
234MC5	1.6	0.1	0.8	0.94	0.26	0.85	20	2	11	13	1	7
TOLUENE	12.0	2.1	6.2	7.06	5.53	6.60	141	44	81	88	27	50
23MC6+4MC7	1.4	0.0	0.6	0.82	0.00	0.64	18	0	8	11	0	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 110902
DATE RUN: 01 15 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-H3010105 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.4	0.1	0.6	0.82	0.26	0.64	16	2	8	11	1	5
3MHEPTANE	0.8	0.1	0.5	0.47	0.26	0.53	10	2	7	6	1	4
255MC6	1.0	0.1	0.4	0.59	0.26	0.43	13	2	6	8	1	4
N OCTANE	0.6	0.0	0.3	0.35	0.00	0.32	8	0	4	5	0	3
223MC6	0.1	0.0	0.1	0.06	0.00	0.11	1	0	1	1	0	1
ETCYHLXANE	0.3	0.0	0.1	0.18	0.00	0.11	4	0	1	2	0	1
ET BENZENE	2.2	0.3	1.0	1.29	0.79	1.06	26	6	13	16	4	8
M+PXYLENE	7.8	0.9	3.3	4.59	2.37	3.51	93	19	43	58	12	27
2+4MC8	0.9	0.0	0.4	0.53	0.00	0.43	11	0	6	7	0	4
O XYLENE	4.4	0.5	1.4	2.59	1.32	1.49	52	11	18	32	7	11
N NONANE	0.7	0.0	0.4	0.41	0.00	0.43	9	0	6	6	0	4
IPRBENZENE	0.5	0.0	0.2	0.29	0.00	0.21	6	0	3	4	0	2
NPRBENZENE	0.4	0.0	0.2	0.24	0.00	0.21	5	0	3	3	0	2
1M3ETBENZ	3.1	0.2	1.0	1.82	0.53	1.06	37	4	13	23	3	8
135MEBENZ	1.2	0.2	0.4	0.71	0.53	0.43	14	4	5	9	3	3
1M2ETBENZ	0.7	0.1	0.3	0.41	0.26	0.32	8	2	4	5	1	2
124MBENZ	3.1	0.2	1.1	1.82	0.53	1.17	37	4	15	23	3	9
SBUBENZENE	0.1	0.0	0.1	0.06	0.00	0.11	1	0	1	1	0	1
N DECANE	0.1	0.0	0.1	0.06	0.00	0.11	1	0	1	1	0	1
123MBENZ	0.9	0.1	0.3	0.53	0.26	0.32	11	2	4	7	1	2
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
I3EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.3	0.0	0.0	0.18	0.00	0.00	4	0	0	2	0	0
UNKNOWNS	10.7	0.9	3.5	6.29	2.37	3.72	128	19	47	80	12	29

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 111101
DATE RUN: 01 11 78
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-83010105 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	156.0	65.7	131.5
GC PPMC	145.8	50.6	109.7

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	11.7	4.6	8.8	8.02	9.09	8.02	106	119	140	103	74	87
SATURATES	34.1	9.6	30.5	23.39	18.97	27.80	432	223	435	269	139	271
OLEFINS	48.4	22.8	35.4	33.20	45.06	32.27	600	518	494	373	322	307
ACETYLENE	10.0	3.8	6.2	6.86	7.51	5.65	115	80	80	71	50	50
NAPTHENES	1.6	0.1	1.5	1.10	0.20	1.37	20	2	21	12	1	13
AROMATICS	33.8	9.2	22.7	23.18	18.18	20.69	393	196	297	244	122	185
BENZENE	5.8	2.7	4.3	3.98	5.34	3.92	67	57	56	41	35	35
TOLUENE	9.8	2.7	7.3	6.72	5.34	6.65	114	58	96	71	36	59
C8+AROM	18.2	3.8	11.1	12.48	7.51	10.12	215	82	148	134	51	92
UNKNOWN	6.2	0.5	4.6	0.00	0.00	0.00	73	11	61	46	7	38
INDIVIDUAL COMPONENTS												
METHANE	11.7	4.6	8.8	8.02	9.09	8.02	166	119	140	103	74	87
ETHYLENE	22.4	13.2	17.6	15.36	26.09	16.04	277	300	245	172	186	153
ETHANE	1.8	0.7	1.5	1.23	1.38	1.37	24	17	22	15	11	14
ACETYLENE	10.0	3.8	6.2	6.86	7.51	5.65	115	80	80	71	50	50
C3 + C3=	11.6	5.1	9.0	7.96	10.08	8.20	144	116	125	89	72	78
C=C=C	0.8	0.1	0.3	0.55	0.20	0.27	9	2	4	6	1	2
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.0	0.2	0.7	0.69	0.40	0.64	13	5	10	8	3	6
B1 + I6	7.5	2.1	4.0	5.14	4.15	3.66	93	48	56	58	30	35
NC4 +B=1=3	3.0	1.7	4.3	2.06	3.36	3.92	38	40	62	24	25	39
TBUTENE-2	0.9	0.4	0.6	0.62	0.79	0.55	11	9	8	7	6	5
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.8	0.2	0.5	0.55	0.40	0.46	10	5	7	6	3	4
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.3	0.1	0.2	0.21	0.20	0.18	4	2	3	2	1	2
ISOPENTANE	2.8	0.8	2.9	1.92	1.58	2.64	36	19	42	22	12	26
PENTENE-1	0.2	0.1	0.2	0.14	0.20	0.18	2	2	3	2	1	2
2MBUT-1	0.4	0.1	0.3	0.27	0.20	0.27	5	2	4	3	1	3
NPENTANE	0.6	0.2	0.6	0.41	0.40	0.55	8	5	9	5	3	5
2NB=1=3	0.3	0.0	0.0	0.21	0.00	0.00	4	0	0	2	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 111101
DATE RUN: 01 11 78
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-83010105 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.5	0.2	0.3	0.34	0.40	0.27	6	5	4	4	3	3
CISPENT-2	0.2	0.0	0.1	0.14	0.00	0.09	2	0	1	2	0	1
2MBUT-2	0.8	0.3	0.7	0.55	0.59	0.64	10	7	10	6	4	6
22MBUTANE	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
CYPENTENE	0.2	0.0	0.1	0.14	0.00	0.09	2	0	1	1	0	1
3MPENTENE	0.0	0.1	0.1	0.00	0.20	0.09	0	2	1	0	1	1
CYPENTANE	0.0	0.0	0.1	0.00	0.00	0.09	0	0	1	0	0	1
23MBUTANE	0.8	0.2	0.5	0.55	0.40	0.46	10	5	7	6	3	4
2MPENTANE	2.4	1.2	1.1	1.65	2.37	1.00	30	28	16	19	17	10
3MPENTANE	1.0	0.5	1.1	0.69	0.99	1.00	13	12	16	8	7	10
HEXENE-1	0.7	0.2	0.4	0.48	0.40	0.36	9	5	6	5	3	3
N HEXANE	0.6	0.4	0.7	0.41	0.79	0.64	8	9	10	5	6	6
TC6=3,=2	0.5	0.4	0.7	0.34	0.79	0.64	6	9	10	4	6	6
CC6=3	0.1	0.0	0.2	0.07	0.00	0.18	1	0	3	1	0	2
2MPENTENE2	0.2	0.2	0.1	0.14	0.40	0.09	2	5	1	2	3	1
MCYP43M2C5	0.8	0.1	0.7	0.55	0.20	0.64	10	2	10	6	1	6
24MPENTANE	1.4	0.3	1.2	0.96	0.59	1.09	18	7	17	11	4	11
BENZENE	5.8	2.7	4.3	3.98	5.34	3.92	67	57	56	41	35	35
CYHEXANE	0.3	0.0	0.3	0.21	0.00	0.27	4	0	4	2	0	3
2MC6+23MC5	2.8	0.6	2.5	1.92	1.19	2.28	35	14	36	22	9	22
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.9	0.2	0.8	0.62	0.40	0.73	11	5	11	7	3	7
224MPENTAN	5.7	1.3	5.0	3.91	2.57	4.56	72	30	71	45	19	44
NHEPTANE	0.9	0.1	0.8	0.62	0.20	0.73	11	2	11	7	1	7
MCYHEXANE	0.3	0.0	0.2	0.21	0.00	0.18	4	0	3	2	0	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.2	0.2	1.0	0.82	0.40	0.91	15	5	14	9	3	9
234MC5	1.3	0.2	1.1	0.89	0.40	1.00	16	5	16	10	3	10
TOLUENE	9.8	2.7	7.3	6.72	5.34	6.65	114	58	96	71	36	59
23MC6+4MC7	1.0	0.3	0.8	0.69	0.59	0.73	13	7	11	8	4	7

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 111101
DATE RUN: 01 11 78
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-H3010105 DRIVER: WAND FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.0	0.2	0.8	0.69	0.40	0.73	13	5	11	8	3	7
3MHEPTANE	0.9	0.1	0.7	0.62	0.20	0.64	11	2	10	7	1	6
255MC6	0.8	0.1	0.7	0.55	0.20	0.64	10	2	10	6	1	6
N OCTANE	0.5	0.1	0.4	0.34	0.20	0.36	6	2	6	4	1	4
223MC6	0.1	0.0	0.1	0.07	0.00	0.09	1	0	1	1	0	1
ETCYHEXANE	0.2	0.0	0.2	0.14	0.00	0.18	2	0	3	2	0	2
ET BENZENE	1.7	0.4	1.2	1.17	0.79	1.09	20	9	16	12	5	10
M+PXYLENE	5.9	1.4	4.0	4.05	2.77	3.65	69	30	53	43	19	33
2+4MC8	0.7	0.0	0.6	0.48	0.00	0.55	9	0	8	5	0	5
O XYLENE	2.8	0.8	1.6	1.92	1.58	1.46	33	17	21	20	11	13
N NONANE	0.7	0.0	0.5	0.48	0.00	0.46	9	0	7	5	0	4
IPRBENZENE	0.4	0.1	0.3	0.27	0.20	0.27	5	2	4	3	1	2
NPRBENZENE	0.3	0.1	0.2	0.21	0.20	0.18	4	2	3	2	1	2
1N3ETBENZ	2.0	0.3	1.2	1.37	0.59	1.09	24	6	16	15	4	10
135MEBENZ	0.8	0.1	0.5	0.55	0.20	0.46	9	2	7	6	1	4
1N2ETBENZ	0.5	0.1	0.4	0.34	0.20	0.36	6	2	5	4	1	3
124MBENZ	2.3	0.3	1.3	1.58	0.59	1.19	27	6	17	17	4	11
SBUBENZENE	0.2	0.1	0.1	0.14	0.20	0.09	2	2	1	1	1	1
N DECANE	0.1	0.0	0.1	0.07	0.00	0.09	1	0	1	1	0	1
123MBENZ	0.5	0.1	0.3	0.34	0.20	0.27	6	2	4	4	1	2
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.2	0.0	0.0	0.14	0.00	0.00	2	0	0	1	0	0
1M3PRBENZ	0.6	0.0	0.0	0.41	0.00	0.00	7	0	0	4	0	0
UNKNOWNS	6.2	0.5	4.6	4.25	0.99	4.19	73	11	61	46	7	38

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 111102
DATE RUN: 01 12 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-63010105 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	158.1	59.0	134.0
GC PPMC	136.4	49.8	117.4

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	11.8	4.2	8.8	8.65	8.43	7.50	180	99	134	112	61	83
SATURATES	32.3	9.4	30.9	23.68	18.88	26.32	440	198	421	273	123	262
OLEFINS	46.8	22.8	38.4	34.31	45.78	32.71	623	469	511	387	292	318
ACETYLENE	9.6	3.9	6.8	7.04	7.83	5.79	119	74	84	74	46	52
NAPTHENES	1.5	0.4	1.5	1.10	0.80	1.28	20	8	20	12	5	12
AROMATICS	29.4	8.6	24.6	21.55	17.27	20.95	367	166	307	228	103	191
BENZENE	6.0	2.6	4.7	4.40	5.22	4.00	74	50	58	46	31	36
TOLUENE	8.9	2.7	7.6	6.52	5.42	6.47	111	52	95	69	32	59
C8+ARON	14.5	3.3	12.3	10.63	6.63	10.48	184	65	156	114	40	97
UNKNOWN	5.0	0.5	6.4	0.00	0.00	0.00	64	10	81	40	6	51
INDIVIDUAL COMPONENTS												
METHANE	11.8	4.2	8.8	8.65	8.43	7.50	180	99	134	112	61	83
ETHYLENE	23.3	12.9	18.9	17.08	25.90	16.10	310	266	251	193	165	156
ETHANE	2.0	0.6	1.4	1.47	1.20	1.19	29	13	20	18	8	12
ACETYLENE	9.6	3.9	6.8	7.04	7.83	5.79	119	74	84	74	46	52
C3 + C3=	11.5	5.2	9.6	8.43	10.44	8.18	153	107	128	95	67	79
C=C=C	0.6	0.2	0.5	0.44	0.40	0.43	8	4	6	5	2	4
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.1	0.3	0.8	0.81	0.60	0.68	15	6	11	9	4	7
B1 + IB	5.8	2.3	4.6	4.25	4.62	3.92	77	47	61	48	29	38
NC4 +B=1=3	4.2	1.4	4.0	3.08	2.81	3.41	58	30	55	36	19	34
TBUTENE-2	0.9	0.3	0.6	0.66	0.60	0.51	12	6	8	7	4	5
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.8	0.2	0.6	0.59	0.40	0.51	11	4	8	7	3	5
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.3	0.1	0.3	0.22	0.20	0.26	4	2	4	2	1	2
ISOPENTANE	2.3	0.7	2.9	1.69	1.41	2.47	31	15	40	20	9	25
PENTENE-1	0.2	0.1	0.2	0.15	0.20	0.17	3	2	3	2	1	2
2MBUT-1	0.4	0.1	0.4	0.29	0.20	0.34	5	2	5	3	1	3
NPENTANE	0.5	0.2	0.6	0.37	0.40	0.51	7	4	8	4	3	5
2MB=1=3	0.3	0.0	0.0	0.22	0.00	0.00	4	0	0	2	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 111102
DATE RUN: 01 12 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-63010105 DRIVEN: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.4	0.1	0.4	0.29	0.20	0.34	5	2	5	3	1	3
CISPENT-2	0.2	0.0	0.2	0.15	0.00	0.17	3	0	3	2	0	2
2MBUT-2	0.7	0.2	0.7	0.51	0.40	0.60	9	4	9	6	3	6
22MBUTANE	0.3	0.0	0.0	0.22	0.00	0.00	4	0	0	3	0	0
CYPENTENE	0.1	0.0	0.1	0.07	0.00	0.09	1	0	1	1	0	1
3MPENTENE	0.1	0.0	0.1	0.07	0.00	0.09	1	0	1	1	0	1
CYPENTANE	0.1	0.0	0.1	0.07	0.00	0.09	1	0	1	1	0	1
23MBUTANE	0.7	0.5	0.6	0.51	1.00	0.51	10	11	8	6	7	5
2MPENTANE	2.2	1.2	1.4	1.61	2.41	1.19	30	25	19	19	16	12
3MPENTANE	0.9	0.4	1.0	0.66	0.80	0.85	12	8	14	8	5	8
HEXENE-1	0.3	0.5	0.3	0.22	1.00	0.26	4	10	4	2	6	2
N HEXANE	0.6	0.4	0.7	0.44	0.80	0.60	8	8	10	5	5	6
TC6=3,=2	0.6	0.4	0.4	0.44	0.80	0.34	8	8	5	5	5	3
CC6=3	0.2	0.1	0.3	0.15	0.20	0.26	3	2	4	2	1	2
2MPENTENE2	0.1	0.1	0.2	0.07	0.20	0.17	1	2	3	1	1	2
MCYP43M2C5	0.7	0.2	0.7	0.51	0.40	0.60	9	4	9	6	3	6
24MPENTANE	1.3	0.4	1.3	0.95	0.80	1.11	18	8	18	11	5	11
BENZENE	6.0	2.6	4.7	4.40	5.22	4.00	74	50	58	46	31	36
CYHEXANE	0.3	0.2	0.3	0.22	0.40	0.26	4	4	4	2	3	2
2MC6+23MC5	2.5	0.5	2.5	1.83	1.00	2.13	34	11	34	21	7	21
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.8	0.2	0.8	0.59	0.40	0.68	11	4	11	7	3	7
224MPENTAN	5.1	1.2	5.2	3.74	2.41	4.43	69	25	70	43	16	44
MHEPTANE	0.8	0.2	0.8	0.59	0.40	0.68	11	4	11	7	3	7
MCYHEXANE	0.2	0.0	0.2	0.15	0.00	0.17	3	0	3	2	0	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.1	0.2	1.1	0.81	0.40	0.94	15	4	15	9	3	9
234MC5	1.1	0.2	1.1	0.81	0.40	0.94	15	4	15	9	3	9
TOLUENE	8.9	2.7	7.6	6.52	5.42	6.47	111	52	95	69	32	59
23MC6+4MC7	0.9	0.3	0.8	0.66	0.60	0.68	12	6	11	8	4	7

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 111102
DATE RUN: 01 12 79
CAR: 1977 HONDA CIVIC 49 STATE VIN: WB-B3010105 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	0.8	0.2	0.8	0.59	0.40	0.68	11	4	11	7	3	7
3MHEPTANE	0.7	0.1	0.7	0.51	0.20	0.60	9	2	9	6	1	6
255MC6	0.7	0.1	0.7	0.51	0.20	0.60	9	2	9	6	1	6
N OCTANE	0.4	0.1	0.4	0.29	0.20	0.34	5	2	5	3	1	3
223MC6	0.1	0.0	0.1	0.07	0.00	0.09	1	0	1	1	0	1
ETCYHEXANE	0.2	0.0	0.2	0.15	0.00	0.17	3	0	3	2	0	2
ET BENZENE	1.5	0.4	1.3	1.10	0.80	1.11	19	8	16	12	5	10
M+PXYLENE	4.9	1.3	4.1	3.59	2.61	3.49	62	25	52	38	16	32
244MC8	0.6	0.0	0.6	0.44	0.00	0.51	8	0	8	5	0	5
O XYLENE	2.4	0.7	1.7	1.76	1.41	1.45	30	14	21	19	8	13
N NONANE	0.5	0.0	0.5	0.37	0.00	0.43	7	0	7	4	0	4
IPRBENZENE	0.3	0.0	0.3	0.22	0.00	0.26	4	0	4	2	0	2
NPRBENZENE	0.2	0.0	0.2	0.15	0.00	0.17	3	0	3	2	0	2
1M3ETBENZ	1.5	0.3	1.3	1.10	0.60	1.11	19	6	16	12	4	10
135MEBENZ	0.6	0.1	0.5	0.44	0.20	0.43	8	2	6	5	1	4
1M2ETBENZ	0.4	0.1	0.4	0.29	0.20	0.34	5	2	5	3	1	3
124MBENZ	1.7	0.3	1.5	1.25	0.60	1.28	22	6	19	13	4	12
SBUBENZENE	0.1	0.1	0.1	0.07	0.20	0.09	1	2	1	1	1	1
N DECANE	0.1	0.0	0.1	0.07	0.00	0.09	1	0	1	1	0	1
123MBENZ	0.3	0.0	0.3	0.22	0.00	0.26	4	0	4	2	0	2
INDANE	0.1	0.0	0.1	0.07	0.00	0.09	1	0	1	1	0	1
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.1	0.07	0.00	0.09	1	0	1	1	0	1
1M3PRBENZ	0.4	0.0	0.4	0.29	0.00	0.34	5	0	5	3	0	3
UNKNOWNS	5.0	0.5	6.4	3.67	1.00	5.45	64	10	81	40	6	51

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120001
DATE RUN: 03 05 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WAHD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 0

HYDROCARBON CONCENTRATION BAG1 BAG2 BAG3
FID PPMC 4344.5 37.8 210.0
GC PPMC 4301.9 39.0 165.6

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
				MAJOR COMPONENTS								
METHANE	265.3	10.6	20.2	6.17	27.18	12.20	3539	183	330	2200	114	205
SATURATES	1833.0	12.1	71.7	42.61	31.03	43.30	21895	187	1048	13608	116	652
OLEFINS	527.9	1.4	27.1	12.27	3.59	16.36	6159	21	387	3828	13	241
ACETYLENE	269.7	0.0	8.1	6.27	0.00	4.89	2920	0	107	1815	0	67
NAPTHENES	97.4	0.3	3.5	2.26	0.77	2.11	1136	5	50	706	3	31
AROMATICS	801.7	3.7	21.2	18.64	9.49	12.80	8783	52	284	5459	33	177
BENZENE	78.7	0.4	3.2	1.83	1.03	1.93	852	6	42	530	3	26
TOLUENE	187.2	0.3	5.2	4.35	0.77	3.14	2051	4	70	1275	3	43
C8+AROM	535.8	3.0	12.8	12.45	7.69	7.73	5967	43	174	3708	27	108
UNKNOWN	506.9	10.9	13.8	0.00	0.00	0.00	5659	157	189	3517	98	117
				INDIVIDUAL COMPONENTS								
METHANE	265.3	10.6	20.2	6.17	27.18	12.20	3539	183	330	2200	114	205
ETHYLENE	162.0	1.2	14.6	3.77	3.08	8.82	1890	18	209	1175	11	130
ETHANE	14.3	1.5	2.8	0.33	3.85	1.69	179	24	43	111	15	27
ACETYLENE	269.7	0.0	8.1	6.27	0.00	4.89	2920	0	107	1815	0	67
C3 + C3=	54.1	0.2	2.2	1.26	0.51	1.33	631	3	31	392	2	20
C=C=C	2.1	0.0	0.0	0.05	0.00	0.00	23	0	0	14	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	30.5	0.4	1.7	0.71	1.03	1.03	369	6	25	229	4	16
B1 + IB	29.4	0.0	0.9	0.68	0.00	0.54	343	0	13	213	0	8
NC4 +B=1=3	156.2	1.7	6.9	3.63	4.36	5.37	1888	27	132	1173	16	82
TBUTENE-2	19.2	0.0	1.1	0.45	0.00	0.66	224	0	16	139	0	10
22MPROPANE	0.9	0.0	0.0	0.02	0.00	0.00	11	0	0	7	0	0
CBUTENE-2	18.9	0.0	1.0	0.44	0.00	0.60	221	0	14	137	0	9
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	5.0	0.0	0.2	0.12	0.00	0.12	58	0	3	36	0	2
ISOPENTANE	188.7	1.6	9.6	4.39	4.10	5.80	2265	25	141	1408	15	88
PENTENE-1	12.3	0.0	0.3	0.29	0.00	0.18	144	0	4	89	0	3
2MBUT-1	20.6	0.0	0.5	0.48	0.00	0.30	240	0	7	149	0	4
NPENTANE	37.4	0.3	2.0	0.87	0.77	1.21	449	5	29	279	3	18
2MB=1=3	3.7	0.0	0.0	0.09	0.00	0.00	42	0	0	26	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120001
DATE RUN: 03 05 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738M156902 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	33.4	0.0	1.0	0.78	0.00	0.60	390	0	14	242	0	9
CISPENT-2	18.0	0.0	0.5	0.42	0.00	0.30	210	0	7	131	0	4
2MBUT-2	56.5	0.0	2.0	1.31	0.00	1.21	659	0	29	410	0	18
22MBUTANE	2.7	0.1	0.5	0.06	0.26	0.30	32	2	7	20	1	5
CYPENTENE	7.4	0.0	0.2	0.17	0.00	0.12	84	0	3	52	0	2
3MPENTENE	5.6	0.0	0.1	0.13	0.00	0.06	65	0	1	41	0	1
CYPENTANE	5.0	0.0	0.2	0.12	0.00	0.12	58	0	3	36	0	2
23MBUTANE	41.9	0.2	1.6	0.97	0.51	0.97	500	3	23	311	2	15
2MPENTANE	98.2	0.4	3.5	2.28	1.03	2.11	1173	6	51	729	4	32
3MPENTANE	55.3	0.4	2.3	1.29	1.03	1.39	661	6	34	411	4	21
HEXENE-1	17.3	0.0	0.5	0.40	0.00	0.30	202	0	7	125	0	4
N HEXANE	25.2	0.1	0.9	0.59	0.26	0.54	301	2	13	187	1	8
TC6=3,=2	35.6	0.0	1.4	0.83	0.00	0.85	415	0	20	258	0	12
CC6=3	9.8	0.0	0.3	0.23	0.00	0.18	114	0	4	71	0	3
2MPENTENE2	17.0	0.0	0.3	0.40	0.00	0.18	198	0	4	123	0	3
MCYP43M2C5	45.2	0.2	1.7	1.05	0.51	1.03	527	3	24	328	2	15
24MPENTANE	81.6	0.4	2.9	1.90	1.03	1.75	972	6	42	604	4	26
BENZENE	78.7	0.4	3.2	1.83	1.03	1.93	852	6	42	530	3	26
CYHEXANE	9.8	0.0	0.5	0.23	0.00	0.30	114	0	7	71	0	4
2MC6+23MC5	232.6	0.9	7.6	5.41	2.31	4.59	2769	14	111	1721	9	69
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	44.4	0.2	1.5	1.03	0.51	0.91	529	3	22	329	2	14
224MPENTAN	354.5	2.0	12.2	8.24	5.13	7.37	4210	31	177	2616	19	110
NHEPTANE	48.0	0.1	1.2	1.12	0.26	0.72	571	2	17	355	1	11
MCYHEXANE	26.3	0.1	0.8	0.61	0.26	0.48	307	2	11	191	1	7
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	69.2	0.3	2.1	1.61	0.77	1.27	822	5	31	511	3	19
234MC5	110.7	0.4	3.2	2.57	1.03	1.93	1315	6	47	817	4	29
TOLUENE	187.2	0.3	5.2	4.35	0.77	3.14	2051	4	70	1275	3	43
23MC6+4MC7	44.2	0.3	1.4	1.03	0.77	0.85	525	5	20	326	3	13

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120001
DATE RUN: 03 05 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	36.2	0.2	1.1	0.84	0.51	0.66	430	3	16	267	2	10
3MHEPTANE	39.8	0.1	1.2	0.93	0.26	0.72	473	2	17	294	1	11
255MC6	38.6	0.1	1.1	0.90	0.26	0.66	458	2	16	284	1	10
N OCTANE	18.5	0.1	0.5	0.43	0.26	0.30	220	2	7	137	1	5
223MC6	5.5	0.0	0.2	0.13	0.00	0.12	65	0	3	41	0	2
ETCYHEXANE	11.1	0.0	0.3	0.26	0.00	0.18	130	0	4	80	0	3
ET BENZENE	36.5	0.1	0.9	0.85	0.26	0.54	403	1	12	250	1	8
M+PXYLENE	145.6	0.5	3.5	3.38	1.28	2.11	1607	7	47	999	4	29
2+4MC8	24.0	0.1	0.8	0.56	0.26	0.48	284	2	12	177	1	7
O XYLENE	62.2	0.2	1.5	1.45	0.51	0.91	687	3	20	427	2	13
N NONANE	29.1	0.2	0.8	0.68	0.51	0.48	345	3	12	214	2	7
IPRBENZENE	20.5	0.1	0.6	0.48	0.26	0.36	228	1	8	142	1	5
NPRBENZENE	13.2	0.0	0.2	0.31	0.00	0.12	147	0	3	91	0	2
1M3ETBENZ	63.1	0.4	1.5	1.47	1.03	0.91	701	5	20	436	4	13
135MEBENZ	29.8	0.2	0.6	0.69	0.51	0.36	331	3	8	206	2	5
1M2ETBENZ	34.0	0.3	1.0	0.79	0.77	0.60	378	4	14	235	3	8
124MBENZ	83.0	0.6	1.8	1.93	1.54	1.09	922	9	24	573	5	15
SBUBENZENE	10.6	0.0	0.3	0.25	0.00	0.18	118	0	4	74	0	3
N DECANE	4.8	0.0	0.1	0.11	0.00	0.06	57	0	1	35	0	1
123MBENZ	17.7	0.3	0.4	0.41	0.77	0.24	197	4	5	122	3	3
INDANE	6.4	0.0	0.0	0.15	0.00	0.00	70	0	0	43	0	0
13EBENZENE	4.1	0.0	0.1	0.10	0.00	0.06	46	0	1	28	0	1
NBUBENZENE	4.0	0.1	0.2	0.09	0.26	0.12	45	1	3	28	1	2
1M3PRBENZ	5.1	0.2	0.2	0.12	0.51	0.12	57	3	3	35	2	2
UNKNOWNS	506.9	10.9	13.8	11.78	27.95	8.33	5659	157	189	3517	98	117

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120002
DATE RUN: 03 06 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738M156902 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 0

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	3082.7	38.3	1174.4
GC PPMC	2939.5	43.9	1105.7

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	214.8	9.5	49.4	7.31	21.64	4.47	3048	153	744	1894	95	462
SATURATES	1233.3	15.0	531.5	41.96	34.17	48.07	15667	217	7164	9737	135	4452
OLEFINS	360.9	1.8	180.1	12.28	4.10	16.29	4478	25	2371	2783	16	1474
ACETYLENE	219.2	0.0	16.0	7.46	0.00	1.45	2524	0	195	1569	0	121
NAPTHENES	60.1	0.3	24.3	2.04	0.68	2.20	746	4	320	463	3	199
AROMATICS	530.5	3.5	192.3	18.05	7.97	17.39	6181	46	2377	3842	29	1478
BENZENE	54.8	0.3	20.7	1.86	0.68	1.87	631	4	253	392	2	157
TOLUENE	126.4	0.6	42.1	4.30	1.37	3.81	1473	8	520	915	5	323
C8+AROM	349.3	2.6	129.5	11.88	5.92	11.71	4137	35	1627	2571	22	1011
UNKNOWN	320.7	13.8	112.1	0.00	0.00	0.00	3807	187	1412	2366	116	878
INDIVIDUAL COMPONENTS												
METHANE	214.8	9.5	49.4	7.31	21.64	4.47	3048	153	744	1894	95	462
ETHYLENE	122.1	1.4	49.1	4.15	3.19	4.44	1515	20	646	942	12	402
ETHANE	11.0	1.6	8.8	0.37	3.64	0.80	146	24	124	91	15	77
ACETYLENE	219.2	0.0	16.0	7.46	0.00	1.45	2524	0	195	1569	0	121
C3 + C3=	38.6	0.3	44.4	1.31	0.68	4.02	479	4	585	298	3	363
C=C=C	1.1	0.0	0.0	0.04	0.00	0.00	13	0	0	8	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	19.6	0.5	16.1	0.67	1.14	1.46	252	7	220	157	5	136
B1 + IB	17.2	0.0	17.3	0.59	0.00	1.56	213	0	228	133	0	142
NC4 +B=1=3	105.2	2.2	87.3	3.58	5.01	7.90	1352	32	1191	840	20	740
TBUTENE-2	12.7	0.0	9.2	0.43	0.00	0.83	158	0	121	98	0	75
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	12.3	0.0	7.7	0.42	0.00	0.70	153	0	101	95	0	63
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	3.3	0.0	1.9	0.11	0.00	0.17	41	0	25	25	0	16
ISOPENTANE	129.4	2.0	81.2	4.40	4.56	7.34	1652	29	1100	1027	18	684
PENTENE-1	8.0	0.0	2.9	0.27	0.00	0.26	99	0	38	62	0	24
2MBUT-1	12.2	0.0	6.2	0.42	0.00	0.56	151	0	82	94	0	51
NPENTANE	26.0	0.4	15.3	0.88	0.91	1.38	332	6	207	206	4	129
2MB=1=3	1.2	0.0	0.0	0.04	0.00	0.00	14	0	0	9	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120002
DATE RUN: 03 06 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K473AH156902 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	21.7	0.0	7.7	0.74	0.00	0.70	269	0	101	167	0	63
CISPENT-2	11.7	0.0	4.0	0.40	0.00	0.36	145	0	53	90	0	33
2MBUT-2	38.8	0.0	13.3	1.32	0.00	1.20	481	0	175	299	0	109
22MBUTANE	1.4	0.5	0.5	0.05	1.14	0.05	16	7	7	11	4	4
CYPENTENE	4.6	0.0	1.2	0.16	0.00	0.11	55	0	15	34	0	10
3MPENTENE	3.4	0.0	0.8	0.12	0.00	0.07	42	0	11	26	0	7
CYPENTANE	3.2	0.0	1.5	0.11	0.00	0.14	40	0	20	25	0	12
23MBUTANE	27.0	0.3	11.7	0.92	0.68	1.06	343	4	158	213	3	98
2MPENTANE	66.0	0.6	29.0	2.25	1.37	2.62	838	9	391	521	5	243
3MPENTANE	37.8	0.6	20.3	1.29	1.37	1.84	480	9	274	298	5	170
HEXENE-1	11.3	0.1	4.0	0.38	0.23	0.36	140	1	53	87	1	33
N HEXANE	16.8	0.1	6.9	0.57	0.23	0.62	213	1	93	133	1	58
TC6=3.=2	23.4	0.0	6.1	0.80	0.00	0.55	290	0	80	180	0	50
CC6=3	6.4	0.0	1.8	0.22	0.00	0.16	79	0	24	49	0	15
2MPENTENE2	10.9	0.0	2.5	0.37	0.00	0.23	135	0	33	84	0	20
MCYP&3M2C5	30.8	0.2	12.1	1.05	0.46	1.09	382	3	159	238	2	99
24MPENTANE	54.8	0.5	19.6	1.86	1.14	1.77	694	7	263	431	4	164
BENZENE	54.8	0.3	20.7	1.86	0.68	1.87	631	4	253	392	2	157
CYHEXANE	1.0	0.0	2.9	0.03	0.00	0.26	12	0	38	6	0	24
2MC6+23MC5	156.3	1.1	50.8	5.32	2.51	4.59	1979	16	682	1230	10	424
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	29.5	0.2	9.8	1.00	0.46	0.89	374	3	132	232	2	82
224MPENTAN	239.8	2.4	79.4	8.16	5.47	7.18	3029	35	1064	1882	21	661
NHEPTANE	31.7	0.1	7.0	1.08	0.23	0.63	401	1	94	249	1	58
MCYHEXANE	17.7	0.1	5.3	0.60	0.23	0.48	220	1	70	136	1	43
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	46.5	0.3	14.3	1.58	0.68	1.29	587	4	192	365	3	119
234MC5	74.5	0.5	20.0	2.53	1.14	1.81	941	7	268	585	4	167
TOLUENE	126.4	0.6	42.1	4.30	1.37	3.81	1473	8	520	915	5	323
23MC6+4MC7	29.5	0.2	9.1	1.00	0.46	0.82	373	3	122	232	2	76

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120002
DATE RUN: 03 06 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	24.2	0.2	7.8	0.82	0.46	0.71	306	3	105	190	2	65
3MHEPTANE	26.5	0.2	8.1	0.90	0.46	0.73	335	3	109	208	2	67
255MC6	25.8	0.2	8.1	0.88	0.46	0.73	325	3	108	202	2	67
N OCTANE	12.3	0.1	3.6	0.42	0.23	0.33	155	1	48	97	1	30
223MC6	3.6	0.0	1.7	0.12	0.00	0.15	45	0	23	28	0	14
ETCYHEXANE	7.4	0.0	2.5	0.25	0.00	0.23	92	0	33	57	0	20
ET BENZENE	23.8	0.1	8.5	0.81	0.23	0.77	279	1	106	174	1	66
M+PXYLENE	95.7	0.3	32.6	3.26	0.68	2.95	1123	4	406	698	2	252
2+4MC8	15.9	0.1	6.1	0.54	0.23	0.55	200	1	82	125	1	51
O XYLENE	40.6	0.2	16.0	1.38	0.46	1.45	477	3	199	296	2	124
N NONANE	19.2	0.0	7.5	0.65	0.00	0.68	242	0	100	150	0	62
IPRBENZENE	13.2	0.1	5.7	0.45	0.23	0.52	156	1	71	97	1	44
NPRBENZENE	8.3	0.0	2.7	0.28	0.00	0.24	98	0	34	61	0	21
1M3ETBENZ	39.3	0.3	16.7	1.34	0.68	1.51	464	4	209	289	3	130
135MEBENZ	18.4	0.1	6.4	0.63	0.23	0.58	217	1	80	135	1	50
1M2ETBENZ	21.6	0.3	10.6	0.73	0.68	0.96	255	4	133	159	3	83
124MBENZ	51.5	0.6	20.2	1.75	1.37	1.83	608	8	253	378	5	157
SBUBENZENE	6.3	0.1	3.2	0.21	0.23	0.29	75	1	40	46	1	25
N DECANE	3.0	0.1	1.5	0.10	0.23	0.14	38	1	20	23	1	12
123MBENZ	10.1	0.2	5.8	0.34	0.46	0.52	119	3	73	74	2	45
INDANE	4.5	0.0	0.0	0.15	0.00	0.00	52	0	0	32	0	0
13EBENZENE	3.6	0.0	0.0	0.12	0.00	0.00	43	0	0	27	0	0
NBUBENZENE	2.9	0.1	0.0	0.10	0.23	0.00	34	1	0	21	1	0
1M3PRBENZ	9.5	0.2	1.1	0.32	0.46	0.10	113	3	14	70	2	9
UNKNOWNS	320.7	13.8	112.1	10.91	31.44	10.14	3807	187	1412	2366	116	878

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120003
DATE RUN: 03 08 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738M156902 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 0

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	3596.5	42.1	1174.4
GC PPMC	3386.0	35.5	1123.8

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	256.8	7.4	51.6	7.58	20.85	4.59	3507	156	709	2179	97	441
SATURATES	1408.8	14.1	566.4	41.61	39.72	50.40	17224	266	6972	10705	165	4333
OLEFINS	438.5	1.1	116.9	12.95	3.10	10.40	5236	20	1405	3254	13	873
ACETYLENE	240.8	0.0	29.1	7.11	0.00	2.59	2669	0	325	1659	0	202
NAPTHENES	68.4	0.3	29.9	2.02	0.85	2.66	817	6	359	508	3	223
AROMATICS	608.0	6.3	208.3	17.96	17.75	18.54	6818	109	2352	4237	68	1462
BENZENE	64.3	0.3	18.0	1.90	0.85	1.60	713	5	201	443	3	125
TOLUENE	142.5	0.8	50.9	4.21	2.25	4.53	1598	14	575	993	9	357
C8+AROM	401.2	5.2	139.4	11.85	14.65	12.40	4573	92	1600	2842	57	994
UNKNOWN	364.7	6.3	121.6	0.00	0.00	0.00	4167	111	1399	2590	69	869
INDIVIDUAL COMPONENTS												
METHANE	256.8	7.4	51.6	7.58	20.85	4.59	3507	156	709	2179	97	441
ETHYLENE	159.6	0.9	37.8	4.71	2.54	3.36	1906	17	454	1185	10	282
ETHANE	14.2	1.4	4.5	0.42	3.94	0.40	182	28	58	113	17	36
ACETYLENE	240.8	0.0	29.1	7.11	0.00	2.59	2669	0	325	1659	0	202
C3 + C3=	45.2	0.2	10.1	1.33	0.56	0.90	540	4	121	335	2	75
C=C=C	1.2	0.0	0.0	0.04	0.00	0.00	14	0	0	8	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	22.9	0.5	8.7	0.68	1.41	0.77	283	10	108	176	6	67
B1 + IB	23.8	0.0	5.4	0.70	0.00	0.48	284	0	65	177	0	40
NC4 +B=1=3	123.3	2.3	47.4	3.64	6.48	4.22	1525	44	590	948	27	367
TBUTENE-2	15.7	0.0	4.9	0.46	0.00	0.44	187	0	59	117	0	37
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	14.8	0.0	4.0	0.44	0.00	0.36	177	0	48	110	0	30
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	3.8	0.0	1.1	0.11	0.00	0.10	45	0	13	28	0	8
ISOPENTANE	147.7	2.0	60.2	4.36	5.63	5.36	1815	38	745	1128	24	463
PENTENE-1	9.2	0.0	2.3	0.27	0.00	0.20	110	0	28	68	0	17
2MBUT-1	15.7	0.0	4.7	0.46	0.00	0.42	187	0	57	117	0	35
NPENTANE	29.4	0.4	12.3	0.87	1.13	1.09	361	8	152	225	5	95
2MB=1=3	2.3	0.0	0.0	0.07	0.00	0.00	27	0	0	17	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120003
DATE RUN: 03 08 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	24.5	0.0	7.7	0.72	0.00	0.69	293	0	93	182	0	58
CISPENT-2	13.2	0.0	3.8	0.39	0.00	0.34	158	0	46	98	0	28
2MBUT-2	40.7	0.0	13.7	1.20	0.00	1.22	486	0	165	302	0	102
22MBUTANE	1.7	0.2	0.4	0.05	0.56	0.04	21	4	5	13	2	3
CYPENTENE	5.2	0.0	1.4	0.15	0.00	0.12	60	0	16	38	0	10
3MPENTENE	3.9	0.0	1.0	0.12	0.00	0.09	47	0	12	29	0	7
CYPENTANE	3.6	0.0	1.4	0.11	0.00	0.12	43	0	17	27	0	10
23MBUTANE	30.8	0.2	12.4	0.91	0.56	1.10	377	4	153	234	2	95
2MPENTANE	76.5	0.5	30.1	2.26	1.41	2.68	935	9	371	581	6	230
3MPENTANE	44.0	0.5	19.5	1.30	1.41	1.74	538	9	240	334	6	149
HEXENE-1	13.9	0.0	4.2	0.41	0.00	0.37	166	0	50	103	0	31
N HEXANE	19.4	0.1	7.7	0.57	0.28	0.69	237	2	95	147	1	59
TC6=3,=2	25.9	0.0	8.8	0.76	0.00	0.78	309	0	106	192	0	66
CC6=3	7.2	0.0	2.3	0.21	0.00	0.20	86	0	28	53	0	17
2MPENTENE2	12.7	0.0	3.7	0.38	0.00	0.33	152	0	44	94	0	28
MCYP43M2C5	35.0	0.2	14.2	1.03	0.56	1.26	418	4	171	260	2	106
24MPENTANE	62.2	0.4	25.5	1.84	1.13	2.27	758	8	313	471	5	194
BENZENE	64.3	0.3	18.0	1.90	0.85	1.60	713	5	201	443	3	125
CYHEXANE	1.3	0.0	3.0	0.04	0.00	0.27	16	0	36	10	0	22
2MC6+23MC5	177.5	1.0	71.5	5.24	2.82	6.36	2163	19	877	1344	12	545
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	33.7	0.2	13.7	1.00	0.56	1.22	411	4	168	255	2	104
224MPENTAN	270.6	2.3	112.0	7.99	6.48	9.97	3289	43	1371	2044	27	852
NHEPTANE	35.6	0.1	11.9	1.05	0.28	1.06	434	2	146	270	1	91
MCYHEXANE	20.2	0.1	7.9	0.60	0.28	0.70	241	2	95	150	1	59
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	52.6	0.3	20.9	1.55	0.85	1.86	639	6	256	397	3	159
234MC5	84.5	0.5	34.1	2.50	1.41	3.03	1027	9	417	638	6	259
TOLUENE	142.5	0.8	50.9	4.21	2.25	4.53	1598	14	575	993	9	357
23MC6+4MC7	33.8	0.2	13.5	1.00	0.56	1.20	411	4	165	255	2	103

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120003
DATE RUN: 03 08 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K473BH156902 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	27.6	0.2	11.2	0.82	0.56	1.00	335	4	137	209	2	85
3MHEPTANE	30.5	0.2	12.4	0.90	0.56	1.10	371	4	152	230	2	94
255MC6	29.3	0.2	11.8	0.87	0.56	1.05	355	4	144	221	2	90
N OCTANE	13.6	0.1	5.3	0.40	0.28	0.47	165	2	65	103	1	40
223MC6	4.1	0.0	1.7	0.12	0.00	0.15	50	0	21	31	0	13
ETCYHEXANE	8.3	0.0	3.4	0.25	0.00	0.30	99	0	41	62	0	25
ET BENZENE	27.2	0.2	9.2	0.80	0.56	0.82	307	3	105	191	2	65
M+PXYLENE	109.1	0.8	36.7	3.22	2.25	3.27	1233	14	417	766	9	259
244MC8	18.1	0.2	7.3	0.53	0.56	0.65	220	4	89	136	2	55
O XYLENE	46.4	0.4	16.7	1.37	1.13	1.49	524	7	190	326	4	118
N NONANE	21.8	0.0	9.0	0.64	0.00	0.80	264	0	110	164	0	68
IPRBENZENE	15.0	0.3	6.5	0.44	0.85	0.58	171	5	74	106	3	46
NPRBENZENE	9.3	0.1	2.7	0.27	0.28	0.24	106	2	31	66	1	19
1M3ETBENZ	45.4	0.6	15.6	1.34	1.69	1.39	516	11	179	321	7	111
135MEBENZ	21.2	0.3	6.5	0.63	0.85	0.58	241	5	74	150	3	46
1M2ETBENZ	24.4	0.5	10.4	0.72	1.41	0.93	277	9	119	172	5	74
124MBENZ	61.4	1.0	19.6	1.81	2.82	1.74	698	18	224	434	11	139
SBUBENZENE	7.3	0.1	2.9	0.22	0.28	0.26	83	2	33	52	1	21
N DECANE	3.4	0.1	1.4	0.10	0.28	0.12	41	2	17	26	1	11
123MBENZ	12.2	0.3	4.9	0.36	0.85	0.44	139	5	56	86	3	35
INDANE	4.7	0.3	2.2	0.14	0.85	0.20	53	5	25	33	3	15
13DEBENZENE	3.0	0.0	0.9	0.09	0.00	0.08	34	0	10	21	0	6
NDUMENZENE	3.6	0.1	0.0	0.11	0.28	0.00	41	2	0	26	1	0
1M3PRBENZ	11.0	0.2	4.6	0.32	0.56	0.41	126	4	53	78	2	33
UNKNOWNS	364.7	6.3	121.6	10.77	17.75	10.82	4167	111	1399	2590	69	869

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTURS

TEST NO.: 120201
DATE RUN: 03 02 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K473RH156902 DRIVER: HYEK FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 20

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	2223.5	38.4	146.8
GC PPMC	2067.4	37.1	140.6

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	148.7	9.4	18.7	7.19	25.34	13.30	2232	171	257	1387	106	159
SATURATES	844.1	15.9	61.7	40.83	42.86	43.88	11345	259	758	7051	161	471
OLEFINS	236.8	1.3	21.7	11.45	3.50	15.43	3109	21	260	1932	13	162
ACETYLENE	157.0	0.0	0.9	7.59	0.00	0.64	1913	0	10	1189	0	6
NAPTHENES	38.9	0.3	3.1	1.88	0.81	2.20	511	5	37	317	3	23
AROMATICS	435.4	4.4	17.4	21.06	11.86	12.38	5368	66	196	3336	41	122
BENZENE	34.7	0.3	2.5	1.68	0.81	1.78	423	4	28	263	3	17
TOLUENE	107.5	0.7	4.1	5.20	1.89	2.92	1325	10	46	824	7	29
C8+AROM	293.2	3.4	10.8	14.18	9.16	7.68	3674	52	124	2283	32	77
UNKNOWN	206.5	5.8	17.1	0.00	0.00	0.00	2594	88	196	1612	55	122
INDIVIDUAL COMPONENTS												
METHANE	148.7	9.4	18.7	7.19	25.34	13.30	2232	171	257	1387	106	159
ETHYLENE	78.4	1.1	13.9	3.79	2.96	9.89	1029	18	167	640	11	104
ETHANE	7.4	1.8	3.0	0.36	4.85	2.13	104	31	39	65	19	24
ACETYLENE	157.0	0.0	0.9	7.59	0.00	0.64	1913	0	10	1189	0	6
C3 + C3=	23.4	0.2	2.1	1.13	0.54	1.49	307	3	25	191	2	16
C=C=C	0.5	0.0	0.0	0.02	0.00	0.00	6	0	0	4	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	13.7	0.5	1.5	0.66	1.35	1.07	186	8	19	116	5	12
B1 + IB	11.8	0.0	0.0	0.57	0.00	0.00	155	0	0	96	0	0
NC4 +B=1=3	72.6	2.5	7.9	3.51	6.74	5.62	987	41	98	614	26	61
TBUTENE-2	8.5	0.0	0.8	0.41	0.00	0.57	112	0	10	69	0	6
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	8.3	0.0	0.8	0.40	0.00	0.57	109	0	10	68	0	6
B=1=2	0.1	0.0	0.0	0.00	0.00	0.00	1	0	0	1	0	0
3MB1	2.2	0.0	0.1	0.11	0.00	0.07	29	0	1	18	0	1
ISOPENTANE	89.8	2.3	8.1	4.34	6.20	5.76	1213	38	100	754	23	62
PENTENE-1	4.9	0.0	0.1	0.24	0.00	0.07	64	0	1	40	0	1
2MBUT-1	8.7	0.0	0.0	0.42	0.00	0.00	114	0	0	71	0	0
NPENTANE	17.3	0.4	1.9	0.84	1.08	1.35	234	7	23	145	4	15
2MB=1=3	1.1	0.0	0.0	0.05	0.00	0.00	14	0	0	9	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120201
DATE RUN: 03 02 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: HYEK FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	14.1	0.0	0.6	0.68	0.00	0.43	185	0	7	115	0	4
CISPENT-2	7.5	0.0	0.3	0.36	0.00	0.21	98	0	4	61	0	2
2MBUT-2	24.4	0.0	1.3	1.18	0.00	0.92	320	0	16	199	0	10
22MBUTANE	0.3	0.1	0.6	0.01	0.27	0.43	4	2	7	3	1	5
CYPENTENE	3.0	0.0	0.1	0.15	0.00	0.07	38	0	1	24	0	1
3MPENTENE	2.1	0.0	0.0	0.10	0.00	0.00	28	0	0	17	0	0
CYPENTANE	2.0	0.0	0.2	0.10	0.00	0.14	26	0	2	16	0	1
23MBUTANE	17.8	0.3	1.3	0.86	0.81	0.92	239	5	16	149	3	10
2MPENTANE	49.9	0.7	3.1	2.41	1.89	2.20	671	11	38	417	7	24
3MPENTANE	24.0	0.4	2.1	1.16	1.08	1.49	323	7	26	200	4	16
HEXENE-1	6.7	0.0	0.4	0.32	0.00	0.28	88	0	5	55	0	3
N HEXANE	10.7	0.1	0.8	0.52	0.27	0.57	144	2	10	89	1	6
TC6=3,=2	21.4	0.0	1.0	1.04	0.00	0.71	281	0	12	175	0	7
CC6=3	3.1	0.0	0.2	0.15	0.00	0.14	41	0	2	25	0	1
2MPENTENE2	6.6	0.0	0.0	0.32	0.00	0.00	87	0	0	54	0	0
MCYP43M2C5	20.2	0.2	1.7	0.98	0.54	1.21	265	3	20	165	2	13
24MPENTANE	36.4	0.5	2.5	1.76	1.35	1.78	488	8	31	303	5	19
BENZENE	34.7	0.3	2.5	1.68	0.81	1.78	423	4	28	263	3	17
CYHEXANE	0.6	0.0	0.4	0.03	0.00	0.28	8	0	5	5	0	3
2MC6+23MC5	111.7	1.2	6.3	5.40	3.23	4.48	1496	20	77	930	12	48
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	17.7	0.2	1.2	0.86	0.54	0.85	237	3	15	147	2	9
224MPENTAN	178.3	2.6	10.2	8.62	7.01	7.25	2383	42	125	1481	26	77
NHEPTANE	18.1	0.1	0.9	0.88	0.27	0.64	242	2	11	151	1	7
MCYHEXANE	11.3	0.1	0.6	0.55	0.27	0.43	148	2	7	92	1	4
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	32.2	0.3	1.7	1.56	0.81	1.21	430	5	21	267	3	13
234MC5	51.6	0.6	2.6	2.50	1.62	1.85	690	10	32	429	6	20
TOLUENE	107.5	0.7	4.1	5.20	1.89	2.92	1325	10	46	824	7	29
23MC6+4MC7	15.7	0.2	1.1	0.76	0.54	0.78	210	3	13	130	2	8

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120201
DATE RUN: 03 02 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738M156902 DRIVER: HYEK FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	14.1	0.2	0.9	0.68	0.54	0.64	188	3	11	117	2	7
3MHEPTANE	16.1	0.2	0.9	0.78	0.54	0.64	215	3	11	134	2	7
255MC6	17.7	0.2	0.9	0.86	0.54	0.64	236	3	11	147	2	7
N OCTANE	8.3	0.1	0.4	0.40	0.27	0.28	111	2	5	69	1	3
223MC6	2.2	0.0	0.2	0.11	0.00	0.14	29	0	2	18	0	2
ETCYHEXANE	4.8	0.0	0.2	0.23	0.00	0.14	63	0	2	39	0	1
ET BENZENE	14.9	0.1	0.7	0.72	0.27	0.50	185	2	8	115	1	5
M+PXYLENE	105.9	0.6	2.5	5.12	1.62	1.78	1315	9	28	817	6	18
2+4MC8	6.2	0.2	0.6	0.30	0.54	0.43	83	3	7	51	2	5
O XYLENE	26.8	0.3	1.1	1.30	0.81	0.78	333	5	12	207	3	8
N NONANE	12.2	0.2	0.7	0.59	0.54	0.50	163	3	9	101	2	5
IPRBENZENE	8.7	0.1	0.5	0.42	0.27	0.36	109	2	6	68	1	4
NPRBENZENE	5.2	0.1	0.2	0.25	0.27	0.14	65	2	2	40	1	1
1M3ETBENZ	27.9	0.4	1.1	1.35	1.08	0.78	349	6	13	217	4	8
135MEBENZ	11.6	0.2	0.5	0.56	0.54	0.36	145	3	6	90	2	4
1M2ETBENZ	15.6	0.4	0.9	0.75	1.08	0.64	195	6	10	121	4	6
124MBENZ	36.1	0.6	1.5	1.75	1.62	1.07	451	9	17	280	6	11
SBUBENZENE	4.5	0.2	0.3	0.22	0.54	0.21	57	3	3	35	2	2
N DECANE	2.1	0.0	0.3	0.10	0.00	0.21	28	0	4	17	0	2
123MBENZ	7.1	0.2	0.4	0.34	0.54	0.28	89	3	5	55	2	3
INDANE	3.3	0.0	0.5	0.16	0.00	0.36	41	0	6	25	0	3
13EBENZENE	2.7	0.0	0.1	0.13	0.00	0.07	34	0	1	21	0	1
NBUBENZENE	9.2	0.1	0.2	0.45	0.27	0.14	116	2	2	72	1	1
1M3PRBENZ	13.7	0.1	0.3	0.66	0.27	0.21	172	2	3	107	1	2
UNKNOWNS	206.5	5.8	17.1	9.99	15.63	12.16	2594	88	196	1612	55	122

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120203
DATE RUN: 03 12 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738M156902 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 20

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	2024.6	31.4	89.0
GC PPMC	2112.5	34.2	89.0

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	158.6	12.6	16.4	7.51	36.84	18.43	1995	203	209	1240	126	130
SATURATES	830.2	9.4	41.0	39.30	27.49	46.07	9352	135	467	5812	84	290
OLEFINS	239.8	0.8	8.1	11.35	2.34	9.10	2638	11	90	1640	7	56
ACETYLENE	172.8	0.0	0.2	8.18	0.00	0.22	1765	0	2	1097	0	1
NAPTHENES	43.9	0.1	1.7	2.08	0.29	1.91	483	1	19	300	1	12
AROMATICS	377.1	1.8	15.0	17.85	5.26	16.85	3896	24	157	2422	15	97
BENZENE	35.9	0.2	1.4	1.70	0.58	1.57	367	3	14	228	2	9
TOLUENE	85.1	0.3	2.8	4.03	0.88	3.15	879	4	29	546	2	18
C8+AROM	256.1	1.3	10.8	12.12	3.80	12.13	2690	17	115	1672	11	71
UNKNOWN	290.1	9.5	6.6	0.00	0.00	0.00	3054	128	70	1898	79	44
INDIVIDUAL COMPONENTS												
METHANE	158.6	12.6	16.4	7.51	36.84	18.43	1995	203	209	1240	126	130
ETHYLENE	81.5	0.7	4.7	3.86	2.05	5.28	897	10	52	557	6	33
ETHANE	7.8	1.7	2.7	0.37	4.97	3.03	92	26	32	57	16	20
ACETYLENE	172.8	0.0	0.2	8.18	0.00	0.22	1765	0	2	1097	0	1
C3 + C3=	25.8	0.1	1.0	1.22	0.29	1.12	284	1	11	176	1	7
C=C=C	1.1	0.0	0.0	0.05	0.00	0.00	12	0	0	7	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	13.7	0.3	1.3	0.65	0.88	1.46	156	4	15	97	3	9
B1 + 1B	15.1	0.0	0.0	0.71	0.00	0.00	166	0	0	103	0	0
NC4 +B=1=3	68.0	1.3	5.9	3.22	3.80	6.63	775	19	68	482	12	42
TBUTENE-2	8.5	0.0	0.3	0.40	0.00	0.34	94	0	3	58	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	7.8	0.0	0.3	0.37	0.00	0.34	86	0	3	53	0	2
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	2.1	0.0	0.0	0.10	0.00	0.00	23	0	0	14	0	0
ISOPENTANE	84.4	1.1	5.6	4.00	3.22	6.29	955	16	64	594	10	40
PENTENE-1	4.9	0.0	0.0	0.23	0.00	0.00	54	0	0	34	0	0
2MBUT-1	8.9	0.0	0.0	0.42	0.00	0.00	98	0	0	61	0	0
NPENTANE	17.0	0.2	1.3	0.80	0.58	1.46	192	3	15	120	2	9
2MB=1=3	1.0	0.0	0.0	0.05	0.00	0.00	11	0	0	7	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120203
DATE RUN: 03 12 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	13.6	0.0	0.3	0.64	0.00	0.34	150	0	3	93	0	2
CISPENT-2	7.2	0.0	0.0	0.34	0.00	0.00	79	0	0	49	0	0
2MBUT-2	23.6	0.0	0.7	1.12	0.00	0.79	260	0	8	161	0	5
22MBUTANE	1.0	0.7	0.7	0.05	2.05	0.79	11	10	8	7	6	5
CYPENTENE	3.1	0.0	0.0	0.15	0.00	0.00	33	0	0	21	0	0
3MPENTENE	2.2	0.0	0.0	0.10	0.00	0.00	24	0	0	15	0	0
CYPENTANE	2.4	0.0	0.1	0.11	0.00	0.11	26	0	1	16	0	1
23MBUTANE	18.6	0.1	0.8	0.88	0.29	0.90	210	1	9	130	1	6
2MPENTANE	43.0	0.3	1.9	2.04	0.88	2.13	484	4	22	301	3	13
3MPENTANE	24.0	0.4	1.6	1.14	1.17	1.80	270	6	18	168	4	11
HEXENE-1	7.6	0.0	0.2	0.36	0.00	0.22	84	0	2	52	0	1
N HEXANE	10.9	0.1	0.6	0.52	0.29	0.67	123	1	7	76	1	4
TC6=3.=2	15.1	0.0	0.6	0.71	0.00	0.67	166	0	7	103	0	4
CC6=3	4.0	0.0	0.0	0.19	0.00	0.00	44	0	0	27	0	0
2MPENTENE2	6.7	0.0	0.0	0.32	0.00	0.00	74	0	0	46	0	0
MCYP43M2C5	19.9	0.1	0.9	0.94	0.29	1.01	219	1	10	136	1	6
24MPENTANE	35.8	0.2	1.5	1.69	0.58	1.69	402	3	17	250	2	11
BENZENE	35.9	0.2	1.4	1.70	0.58	1.57	367	3	14	228	2	9
CYHEXANE	4.3	0.0	0.3	0.20	0.00	0.34	47	0	3	29	0	2
2MC6+23MC5	104.5	0.6	3.6	4.95	1.75	4.04	1173	9	41	729	5	25
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	19.6	0.1	0.7	0.93	0.29	0.79	220	1	8	137	1	5
224MPENTAN	161.9	1.3	6.1	7.66	3.80	6.85	1813	19	69	1127	12	43
NHEPTANE	20.7	0.0	0.4	0.98	0.00	0.45	232	0	5	144	0	3
MCYHEXANE	12.0	0.0	0.3	0.57	0.00	0.34	132	0	3	82	0	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	31.8	0.2	1.0	1.51	0.58	1.12	356	3	11	221	2	7
234MC5	52.9	0.2	1.5	2.50	0.58	1.69	592	3	17	368	2	11
TOLUENE	85.1	0.3	2.8	4.03	0.88	3.15	879	4	29	546	2	18
23MC6+4MC7	20.8	0.1	0.7	0.98	0.29	0.79	233	1	8	145	1	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120203
DATE RUN: 03 12 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4736H156902 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	17.0	0.1	0.6	0.80	0.29	0.67	190	1	7	118	1	4
3MHEPTANE	18.8	0.1	0.5	0.89	0.29	0.56	211	1	6	131	1	4
255MC6	18.3	0.1	0.5	0.87	0.29	0.56	205	1	6	127	1	4
N OCTANE	8.7	0.1	0.2	0.41	0.29	0.22	97	1	2	61	1	1
223MC6	2.6	0.0	0.1	0.12	0.00	0.11	29	0	1	18	0	1
ETCYHEXANE	5.3	0.0	0.1	0.25	0.00	0.11	58	0	1	36	0	1
ET BENZENE	17.2	0.0	0.5	0.81	0.00	0.56	179	0	5	111	0	3
M+PXYLENE	68.2	0.2	2.5	3.23	0.58	2.81	710	3	26	441	2	16
2+4MC8	11.7	0.1	0.5	0.55	0.29	0.56	131	1	6	81	1	4
O XYLENE	29.4	0.2	1.1	1.39	0.58	1.24	306	3	12	190	2	7
N NONANE	14.3	0.0	0.7	0.68	0.00	0.79	160	0	8	99	0	5
IPRBENZENE	10.1	0.1	0.3	0.48	0.29	0.34	106	1	3	66	1	2
NPRBENZENE	6.0	0.0	0.1	0.28	0.00	0.11	63	0	1	39	0	1
1M3ETBENZ	29.8	0.1	1.3	1.41	0.29	1.46	312	1	14	194	1	9
135MEBENZ	12.2	0.3	0.6	0.58	0.88	0.67	128	4	6	79	2	4
1M2ETBENZ	16.1	0.0	0.8	0.76	0.00	0.90	169	0	8	105	0	5
124MBENZ	37.5	0.4	2.0	1.78	1.17	2.25	393	5	21	244	3	13
SBUBENZENE	5.1	0.0	0.6	0.24	0.00	0.67	54	0	6	33	0	4
N DECANE	2.4	0.0	0.0	0.11	0.00	0.00	27	0	0	17	0	0
123MBENZ	9.6	0.0	0.6	0.45	0.00	0.67	101	0	6	62	0	4
INDANE	3.5	0.0	0.0	0.17	0.00	0.00	36	0	0	22	0	0
13EBENZENE	2.2	0.0	0.1	0.10	0.00	0.11	23	0	1	14	0	1
NBUBENZENE	0.0	0.0	0.1	0.00	0.00	0.11	0	0	1	0	0	1
1M3PRBENZ	9.2	0.0	0.2	0.44	0.00	0.22	97	0	2	60	0	1
UNKNOWNS	290.1	9.5	6.6	13.73	27.78	7.42	3054	128	70	1898	79	44

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120401
DATE RUN: 03 01 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PRUCEDURE

TEST TEMPERATURE = 40

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	1090.1	37.6	84.9
GC PPMC	1041.6	35.2	69.8

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	113.4	11.6	15.6	10.89	32.95	22.35	1588	223	240	987	139	149
SATURATES	414.1	14.3	33.0	39.76	40.63	47.28	5192	246	454	3227	153	282
OLEFINS	136.0	1.2	9.7	13.06	3.41	13.90	1665	20	130	1035	13	81
ACETYLENE	57.2	0.0	0.3	5.49	0.00	0.43	650	0	4	404	0	2
NAPTHENES	22.0	0.3	1.3	2.11	0.85	1.86	269	5	17	167	3	11
AROMATICS	207.5	3.8	6.1	19.92	10.80	8.74	2386	60	77	1483	37	48
BENZENE	21.0	0.3	1.1	2.02	0.85	1.58	239	5	14	148	3	9
TOLUENE	44.7	0.6	1.8	4.29	1.70	2.58	514	9	23	319	6	14
C8+AROM	141.8	2.9	3.2	13.61	8.24	4.58	1657	47	41	1030	29	26
UNKNOWN	91.4	4.0	3.8	0.00	0.00	0.00	1071	64	49	666	40	30
INDIVIDUAL COMPONENTS												
METHANE	113.4	11.6	15.6	10.89	32.95	22.35	1588	223	240	987	139	149
ETHYLENE	55.0	1.0	6.3	5.28	2.84	9.03	673	17	85	419	10	53
ETHANE	4.8	1.7	2.5	0.46	4.83	3.58	63	31	36	39	19	22
ACETYLENE	57.2	0.0	0.3	5.49	0.00	0.43	650	0	4	404	0	2
C3 + C3=	17.6	0.2	1.3	1.69	0.57	1.86	216	3	17	134	2	11
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	7.9	0.5	1.1	0.76	1.42	1.58	100	9	15	62	5	10
B1 + IB	8.7	0.0	0.0	0.84	0.00	0.00	107	0	0	66	0	0
NC4 +B=1=3	36.5	2.5	5.4	3.50	7.10	7.74	463	44	75	288	27	47
TBUTENE-2	4.2	0.0	0.4	0.40	0.00	0.57	51	0	5	32	0	3
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	4.1	0.0	0.4	0.39	0.00	0.57	50	0	5	31	0	3
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	1.1	0.0	0.0	0.11	0.00	0.00	13	0	0	8	0	0
ISOPENTANE	42.4	2.0	4.9	4.07	5.68	7.02	534	35	68	332	22	42
PENTENE-1	2.4	0.0	0.0	0.23	0.00	0.00	29	0	0	18	0	0
2MBUT-1	3.9	0.0	0.0	0.37	0.00	0.00	48	0	0	30	0	0
NPENTANE	8.6	0.4	1.0	0.83	1.14	1.43	108	7	14	67	4	9
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120401
DATE RUN: 03 01 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4736H156902 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	6.3	0.0	0.2	0.60	0.00	0.29	77	0	3	48	0	2
CISPENT-2	3.3	0.0	0.1	0.32	0.00	0.14	40	0	1	25	0	1
2MBUT-2	11.2	0.0	0.4	1.08	0.00	0.57	137	0	5	85	0	3
22MBUTANE	0.4	0.2	0.3	0.04	0.57	0.43	5	3	4	3	2	3
CYPENTENE	1.4	0.0	0.0	0.13	0.00	0.00	17	0	0	10	0	0
3MPENTENE	1.0	0.0	0.0	0.10	0.00	0.00	12	0	0	8	0	0
CYPENTANE	1.1	0.0	0.1	0.11	0.00	0.14	13	0	1	8	0	1
23MBUTANE	9.0	0.3	0.7	0.86	0.85	1.00	113	5	10	70	3	6
2MPENTANE	18.7	0.5	1.4	1.80	1.42	2.01	234	9	19	146	5	12
3MPENTANE	12.1	0.5	1.0	1.16	1.42	1.43	152	9	14	94	5	9
HEXENE-1	3.6	0.0	0.1	0.35	0.00	0.14	44	0	1	27	0	1
N HEXANE	5.3	0.2	0.4	0.51	0.57	0.57	66	3	6	41	2	3
TC6=3,=2	7.2	0.0	0.4	0.69	0.00	0.57	88	0	5	55	0	3
CC6=3	2.0	0.0	0.1	0.19	0.00	0.14	24	0	1	15	0	1
2MPENTENE2	3.0	0.0	0.0	0.29	0.00	0.00	37	0	0	23	0	0
MCYP43M2C5	9.8	0.2	0.7	0.94	0.57	1.00	120	3	9	75	2	6
24MPENTANE	17.4	0.4	1.2	1.67	1.14	1.72	217	7	16	135	4	10
BENZENE	21.0	0.3	1.1	2.02	0.85	1.58	239	5	14	148	3	9
CYHEXANE	2.4	0.0	0.2	0.23	0.00	0.29	29	0	3	18	0	2
2MC6+23MC5	49.7	0.9	2.8	4.77	2.56	4.01	621	15	38	386	10	24
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	9.6	0.2	0.5	0.92	0.57	0.72	120	3	7	75	2	4
224MPENTAN	79.5	2.1	5.1	7.63	5.97	7.31	991	36	70	616	22	43
NHEPTANE	10.2	0.1	0.3	0.98	0.28	0.43	127	2	4	79	1	3
MCYHEXANE	5.9	0.1	0.2	0.57	0.28	0.29	72	2	3	45	1	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	15.9	0.2	0.7	1.53	0.57	1.00	198	3	10	123	2	6
234MC5	24.9	0.4	1.1	2.39	1.14	1.58	310	7	15	193	4	9
TOLUENE	44.7	0.6	1.8	4.29	1.70	2.58	514	9	23	319	6	14
23MC6+4MC7	10.8	0.2	0.5	1.04	0.57	0.72	135	3	7	84	2	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120401
DATE RUN: 03 01 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	9.0	0.1	0.4	0.86	0.28	0.57	112	2	5	70	1	3
3MHEPTANE	9.9	0.1	0.3	0.95	0.28	0.43	123	2	4	77	1	3
255MC6	9.6	0.2	0.4	0.92	0.57	0.57	119	3	5	74	2	3
N OCTANE	4.6	0.1	0.2	0.44	0.28	0.29	57	2	3	36	1	2
223MC6	1.4	0.0	0.1	0.13	0.00	0.14	17	0	1	11	0	1
ETCYHEXANE	2.8	0.0	0.1	0.27	0.00	0.14	34	0	1	21	0	1
ET BENZENE	9.2	0.1	0.2	0.88	0.28	0.29	107	2	3	66	1	2
M+PXYLENE	36.6	0.5	0.8	3.51	1.42	1.15	424	8	10	264	5	6
2+4MC8	6.8	0.2	0.3	0.65	0.57	0.43	85	3	4	53	2	3
O XYLENE	16.3	0.3	0.4	1.56	0.85	0.57	189	5	5	117	3	3
N NONANE	7.6	0.2	0.3	0.73	0.57	0.43	95	3	4	59	2	3
IPRBENZENE	5.4	0.1	0.2	0.52	0.28	0.29	63	2	3	39	1	2
NPRBENZENE	2.7	0.0	0.0	0.26	0.00	0.00	31	0	0	20	0	0
1M3ETBENZ	16.4	0.4	0.4	1.57	1.14	0.57	191	6	5	119	4	3
135MEBENZ	7.1	0.2	0.1	0.68	0.57	0.14	83	3	1	51	2	1
1M2ETBENZ	9.1	0.3	0.4	0.87	0.85	0.57	106	5	5	66	3	3
124MBENZ	23.0	0.7	0.5	2.21	1.99	0.72	268	11	6	167	7	4
SBUBENZENE	2.8	0.1	0.1	0.27	0.28	0.14	33	2	1	20	1	1
N DECANE	1.5	0.1	0.1	0.14	0.28	0.14	19	2	1	12	1	1
123MBENZ	5.4	0.2	0.1	0.52	0.57	0.14	63	3	1	39	2	1
INDANE	2.4	0.0	0.0	0.23	0.00	0.00	28	0	0	17	0	0
13EBENZENE	1.0	0.0	0.0	0.10	0.00	0.00	12	0	0	7	0	0
NBUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1M3PRBENZ	4.4	0.0	0.0	0.42	0.00	0.00	52	0	0	32	0	0
UNKNOWNS	91.4	4.0	3.8	8.78	11.36	5.44	1071	64	49	666	40	30

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120402
DATE RUN: 03 13 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738M156902 DRIVER: WARD FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 40

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	2245.8	30.5	102.5
GC PPMC	2376.2	33.8	97.2

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	157.8	10.5	17.9	6.64	31.07	18.42	2009	164	246	1249	102	153
SATURATES	1042.4	6.4	36.7	43.87	18.93	37.76	11883	90	451	7385	56	280
OLEFINS	268.5	0.5	7.6	11.30	1.48	7.82	2989	7	91	1858	4	57
ACETYLENE	179.1	0.0	0.6	7.54	0.00	0.62	1851	0	7	1150	0	4
NAPTHENES	55.4	0.1	1.3	2.33	0.30	1.34	617	1	16	383	1	10
AROMATICS	433.7	5.2	22.0	18.25	15.38	22.63	4535	67	248	2818	41	154
BENZENE	40.8	0.2	2.0	1.72	0.59	2.06	422	3	22	262	2	14
TOLUENE	100.2	0.5	3.7	4.22	1.48	3.81	1048	6	42	651	4	26
C8+AROM	292.7	4.5	16.3	12.32	13.31	16.77	3111	59	187	1933	36	116
UNKNOWN	239.3	11.1	11.1	0.00	0.00	0.00	2549	145	127	1584	90	79
INDIVIDUAL COMPONENTS												
METHANE	157.8	10.5	17.9	6.64	31.07	18.42	2009	164	246	1249	102	153
ETHYLENE	92.0	0.4	4.2	3.87	1.18	4.32	1024	5	50	637	3	31
ETHANE	8.6	0.9	2.1	0.36	2.66	2.16	103	13	27	64	8	17
ACETYLENE	179.1	0.0	0.6	7.54	0.00	0.62	1851	0	7	1150	0	4
C3 + C3=	27.9	0.0	1.0	1.17	0.00	1.03	311	0	12	193	0	7
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	18.1	0.2	1.4	0.76	0.59	1.44	209	3	17	130	2	11
B1 + I8	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NC4 +B=1=3	106.5	0.9	5.9	4.48	2.66	6.07	1228	13	73	763	8	46
TBUTENE-2	10.3	0.8	0.3	0.43	0.00	0.31	115	0	4	71	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	9.4	0.0	0.4	0.40	0.00	0.41	105	0	5	65	0	3
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	2.7	0.0	0.0	0.11	0.00	0.00	30	0	0	19	0	0
ISOPENTANE	117.1	0.7	5.3	4.93	2.07	5.45	1341	10	65	834	6	41
PENTENE-1	6.7	0.0	0.0	0.28	0.00	0.00	75	0	0	46	0	0
2MBUT-1	11.2	0.0	0.0	0.47	0.00	0.00	125	0	0	78	0	0
NPENTANE	24.0	0.3	1.2	1.01	0.89	1.23	275	4	15	171	3	9
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120402
DATE RUN: 03 13 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	18.0	0.0	0.2	0.76	0.00	0.21	200	0	2	125	0	1
CISPENT-2	9.6	0.0	0.0	0.40	0.00	0.00	107	0	0	66	0	0
2MBUT-2	30.9	0.0	0.7	1.30	0.00	0.72	344	0	8	214	0	5
22MBUTANE	0.9	0.0	0.5	0.04	0.00	0.51	10	0	6	6	0	4
CYPENTENE	3.8	0.0	0.0	0.16	0.00	0.00	41	0	0	26	0	0
3MPENTENE	2.7	0.1	0.0	0.11	0.30	0.00	30	1	0	19	1	0
CYPENTANE	3.0	0.0	0.1	0.13	0.00	0.10	33	0	1	21	0	1
23MBUTANE	24.3	0.2	0.7	1.02	0.59	0.72	277	3	9	172	2	5
2MPENTANE	61.9	0.3	1.6	2.61	0.89	1.65	706	4	20	439	3	12
3MPENTANE	33.0	0.3	1.5	1.39	0.89	1.54	376	4	18	234	3	11
MEXENE-1	10.3	0.0	0.2	0.43	0.00	0.21	115	0	2	71	0	1
N HEXANE	14.7	0.1	0.5	0.62	0.30	0.51	168	1	6	104	1	4
TC6=3,=2	18.8	0.0	0.6	0.79	0.00	0.62	209	0	7	130	0	4
CC6=3	5.1	0.0	0.0	0.21	0.00	0.00	57	0	0	35	0	0
2MPENTENE2	9.1	0.0	0.0	0.38	0.00	0.00	101	0	0	63	0	0
MCYP43M2C5	26.2	0.1	0.8	1.10	0.30	0.82	292	1	10	181	1	6
24MPENTANE	45.8	0.2	1.3	1.93	0.59	1.34	520	3	16	323	2	10
BENZENE	40.8	0.2	2.0	1.72	0.59	2.06	422	3	22	262	2	14
CYHEXANE	6.2	0.0	0.0	0.26	0.00	0.00	69	0	0	43	0	0
2MC6+23MC5	127.1	0.4	3.0	5.35	1.18	3.09	1444	6	37	898	3	23
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	23.9	0.1	0.6	1.01	0.30	0.62	272	1	7	169	1	5
224MPENTAN	193.2	0.9	5.1	8.13	2.66	5.25	2190	13	62	1361	8	39
NHEPTANE	24.1	0.0	0.4	1.01	0.00	0.41	274	0	5	170	0	3
MCYHEXANE	14.3	0.0	0.3	0.60	0.00	0.31	159	0	4	99	0	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	36.5	0.1	0.8	1.54	0.30	0.82	414	1	10	257	1	6
234MC5	56.4	0.2	1.2	2.37	0.59	1.23	639	3	15	397	2	9
TOLUENE	100.2	0.5	3.7	4.22	1.48	3.81	1048	6	42	651	4	26
23MC6+4MC7	23.4	0.1	0.7	0.98	0.30	0.72	265	1	9	165	1	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120402
DATE RUN: 03 13 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4736H156902 DRIVER: WARD FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	19.1	0.1	0.5	0.80	0.30	0.51	216	1	6	135	1	4
3MHEPTANE	20.9	0.1	0.4	0.88	0.30	0.41	237	1	5	147	1	3
255MC6	20.2	0.1	0.5	0.85	0.30	0.51	228	1	6	142	1	4
N OCTANE	9.5	0.0	0.2	0.40	0.00	0.21	108	0	2	67	0	2
223MC6	2.9	0.0	0.1	0.12	0.00	0.10	33	0	1	20	0	1
ETCYHEXANE	5.7	0.0	0.1	0.24	0.00	0.10	63	0	1	39	0	1
ET BENZENE	19.2	0.1	0.8	0.81	0.30	0.82	202	1	9	126	1	6
M+PXYLENE	76.8	0.7	4.5	3.32	2.07	4.63	830	9	51	516	6	32
2+4MC8	12.6	0.2	0.5	0.53	0.59	0.51	143	3	6	89	2	4
O XYLENE	33.2	0.3	1.7	1.40	0.89	1.75	350	4	19	217	2	12
N NONANE	15.3	0.0	0.7	0.64	0.00	0.72	173	0	9	108	0	5
IPRBENZENE	10.8	0.2	0.3	0.45	0.59	0.31	114	3	3	71	2	2
NPRBENZENE	6.6	0.1	0.2	0.28	0.30	0.21	70	1	2	43	1	1
1M3ETBENZ	34.6	0.5	2.0	1.46	1.48	2.06	367	7	23	228	4	14
135MEBENZ	13.9	0.3	0.9	0.58	0.89	0.93	147	4	10	92	2	6
1M2ETBENZ	17.1	0.4	0.7	0.72	1.18	0.72	181	5	8	113	3	5
124MBENZ	44.7	1.1	3.4	1.88	3.25	3.50	474	14	39	294	9	24
SBUBENZENE	5.3	0.2	0.4	0.22	0.59	0.41	56	3	5	35	2	3
N DECANE	2.4	0.0	0.0	0.10	0.00	0.00	27	0	0	17	0	0
123MBENZ	11.7	0.3	0.8	0.49	0.89	0.82	124	4	9	77	2	6
INDANE	4.3	0.0	0.0	0.18	0.00	0.00	45	0	0	28	0	0
13EBENZENE	2.0	0.0	0.1	0.08	0.00	0.10	21	0	1	13	0	1
NBUBENZENE	2.4	0.1	0.2	0.10	0.30	0.21	26	1	2	16	1	1
1M3PRBENZ	8.1	0.2	0.3	0.34	0.59	0.31	86	3	3	54	2	2
UNKNOWNS	239.3	11.1	11.1	10.07	32.84	11.42	2549	145	127	1584	90	79

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120602
DATE RUN: 02 01 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 60

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	582.7	22.1	55.5
GC PPMC	587.2	19.5	51.0

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	55.5	10.4	16.0	9.45	53.33	31.37	727	209	222	452	130	138
SATURATES	208.3	6.6	21.7	35.47	33.85	42.55	2444	119	269	1519	74	167
OLEFINS	66.0	0.9	6.2	11.24	4.62	12.16	756	16	75	470	10	47
ACETYLENE	63.3	0.0	0.0	10.78	0.00	0.00	673	0	0	418	0	0
NAPTHENES	10.2	0.0	0.5	1.74	0.00	0.98	117	0	6	73	0	4
AROMATICS	148.4	1.6	6.0	25.27	8.21	11.76	1597	26	68	993	16	42
BENZENE	15.5	0.3	1.7	2.64	1.54	3.33	165	5	19	102	3	12
TOLUENE	49.0	0.4	1.9	8.34	2.05	3.73	527	7	22	328	4	13
C8+AROM	83.9	0.9	2.4	14.29	4.62	4.71	918	15	28	570	9	17
UNKNOWN	35.5	0.0	0.6	0.00	0.00	0.00	389	0	7	242	0	4
INDIVIDUAL COMPONENTS												
METHANE	55.5	10.4	16.0	9.45	53.33	31.37	727	209	222	452	130	138
ETHYLENE	31.0	0.5	4.8	5.28	2.56	9.41	355	9	58	221	5	36
ETHANE	3.9	1.3	2.4	0.66	6.67	4.71	48	25	31	30	15	19
ACETYLENE	63.3	0.0	0.0	10.78	0.00	0.00	673	0	0	418	0	0
C3 + C3=	11.7	0.1	1.0	1.99	0.51	1.96	134	2	12	83	1	8
C=C=C	0.4	0.1	0.0	0.07	0.51	0.00	4	2	0	3	1	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	2.1	0.1	0.4	0.36	0.51	0.78	25	2	5	15	1	3
B1 + IB	5.8	0.0	0.0	0.99	0.00	0.00	66	0	0	41	0	0
NC4 +B=1=3	17.5	1.1	3.8	2.98	5.64	7.45	208	20	48	129	12	30
TBUTENE-2	1.3	0.0	0.2	0.22	0.00	0.39	15	0	2	9	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.2	0.0	0.1	0.20	0.00	0.20	14	0	1	9	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.4	0.0	0.0	0.07	0.00	0.00	5	0	0	3	0	0
ISOPENTANE	15.9	0.8	2.5	2.71	4.10	4.90	187	14	31	117	9	19
PENTENE-1	0.7	0.0	0.0	0.12	0.00	0.00	8	0	0	5	0	0
2MBUT-1	1.0	0.0	0.0	0.17	0.00	0.00	11	0	0	7	0	0
NPENTANE	2.6	0.1	0.4	0.48	0.51	0.78	33	2	5	21	1	3
2MB=1=3	0.4	0.0	0.0	0.07	0.00	0.00	4	0	0	3	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120602
DATE RUN: 02 01 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WAND FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.8	0.0	0.0	0.31	0.00	0.00	21	0	0	13	0	0
CISPENT-2	0.9	0.0	0.0	0.15	0.00	0.00	10	0	0	6	0	0
2MBUT-2	3.6	0.1	0.1	0.61	0.51	0.20	41	2	1	26	1	1
22MBUTANE	0.8	0.0	0.7	0.14	0.00	1.37	9	0	9	6	0	5
CYPENTENE	0.4	0.0	0.0	0.07	0.00	0.00	4	0	0	3	0	0
3MPENTENE	0.4	0.0	0.0	0.07	0.00	0.00	5	0	0	3	0	0
CYPENTANE	0.4	0.0	0.0	0.07	0.00	0.00	5	0	0	3	0	0
23MBUTANE	4.1	0.1	0.3	0.70	0.51	0.59	48	2	4	30	1	2
2MPENTANE	9.1	0.2	0.6	1.55	1.03	1.18	107	4	7	66	2	5
3MPENTANE	5.3	0.1	0.5	0.90	0.51	0.98	62	2	6	39	1	4
HEXENE-1	1.1	0.0	0.0	0.19	0.00	0.00	13	0	0	8	0	0
N HEXANE	3.6	0.1	0.3	0.61	0.51	0.59	42	2	4	26	1	2
TC6=3,=2	2.4	0.0	0.0	0.41	0.00	0.00	28	0	0	17	0	0
CC6=3	0.6	0.0	0.0	0.10	0.00	0.00	7	0	0	4	0	0
2MPENTENE2	0.9	0.1	0.0	0.15	0.51	0.00	10	2	0	6	1	0
MCYP43M2C5	4.3	0.0	0.3	0.73	0.00	0.59	49	0	4	31	0	2
24MPENTANE	9.6	0.2	0.7	1.63	1.03	1.37	112	4	9	70	2	5
BENZENE	15.5	0.3	1.7	2.64	1.54	3.33	165	5	19	102	3	12
CYHEXANE	1.9	0.0	0.0	0.32	0.00	0.00	22	0	0	14	0	0
2MC6+23MC5	22.2	0.4	1.4	3.78	2.05	2.75	260	7	17	161	4	11
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	7.6	0.1	0.5	1.29	0.51	0.98	89	2	6	55	1	4
224MPENTAN	44.5	1.1	3.5	7.58	5.64	6.86	519	20	43	323	12	27
NHEPTANE	7.4	0.1	0.4	1.26	0.51	0.78	87	2	5	54	1	3
MCYHEXANE	1.9	0.0	0.1	0.32	0.00	0.20	22	0	1	14	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	9.8	0.2	0.6	1.67	1.03	1.18	114	4	7	71	2	5
234MC5	12.0	0.2	0.6	2.04	1.03	1.18	140	4	7	87	2	5
TOLUENE	49.0	0.4	1.9	8.34	2.05	3.73	527	7	22	328	4	13
23MC6+4MC7	3.3	0.1	0.4	0.56	0.51	0.78	38	2	5	24	1	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120602
DATE RUN: 02 01 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	5.6	0.1	0.4	0.95	0.51	0.78	65	2	5	41	1	3
3MHEPTANE	5.3	0.1	0.3	0.90	0.51	0.59	62	2	4	38	1	2
255MC6	5.1	0.1	0.3	0.87	0.51	0.59	59	2	4	37	1	2
N OCTANE	3.5	0.0	0.2	0.60	0.00	0.39	41	0	2	25	0	2
223MC6	0.7	0.0	0.0	0.12	0.00	0.00	8	0	0	5	0	0
ETCYHEXANE	1.7	0.0	0.1	0.29	0.00	0.20	19	0	1	12	0	1
ET BENZENE	6.9	0.0	0.2	1.18	0.00	0.39	75	0	2	46	0	1
M+PXYLENE	27.6	0.3	0.8	4.70	1.54	1.57	299	5	9	186	3	6
2+4MC8	3.8	0.0	0.3	0.65	0.00	0.59	44	0	4	27	0	2
O XYLENE	11.1	0.1	0.3	1.89	0.51	0.59	120	2	3	75	1	2
N NONANE	2.2	0.0	0.2	0.37	0.00	0.39	26	0	2	16	0	2
IPRBENZENE	2.2	0.0	0.1	0.37	0.00	0.20	24	0	1	15	0	1
NPRBENZENE	2.0	0.0	0.0	0.34	0.00	0.00	22	0	0	14	0	0
1M3ETBENZ	8.8	0.1	0.2	1.50	0.51	0.39	96	2	2	60	1	1
135MEBENZ	3.6	0.0	0.3	0.61	0.00	0.59	39	0	3	24	0	2
1M2ETBENZ	3.3	0.1	0.1	0.56	0.51	0.20	36	2	1	22	1	1
124MBENZ	11.2	0.1	0.1	1.91	0.51	0.20	122	2	1	76	1	1
SBUBENZENE	1.1	0.0	0.0	0.19	0.00	0.00	12	0	0	7	0	0
N DECANE	0.6	0.0	0.0	0.10	0.00	0.00	7	0	0	4	0	0
123MBENZ	2.7	0.0	0.3	0.46	0.00	0.59	29	0	3	18	0	2
INDANE	1.0	0.0	0.0	0.17	0.00	0.00	11	0	0	7	0	0
13EBENZENE	0.3	0.0	0.0	0.05	0.00	0.00	3	0	0	2	0	0
NBUBENZENE	0.9	0.0	0.0	0.15	0.00	0.00	10	0	0	6	0	0
1M3PRBENZ	1.2	0.2	0.0	0.20	1.03	0.00	13	3	0	8	2	0
UNKNOWNS	35.5	0.0	0.6	6.05	0.00	1.18	389	0	7	242	0	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120603
DATE RUN: 02 28 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: SUNNER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 60

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	519.7	27.1	74.3
GC PPMC	512.0	23.4	69.7

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	51.2	12.1	18.2	10.00	51.71	26.11	699	240	245	434	149	153
SATURATES	182.0	9.1	31.7	35.55	38.89	45.48	2224	162	383	1382	101	238
OLEFINS	58.9	0.9	8.6	11.50	3.85	12.34	703	16	101	437	10	63
ACETYLENE	53.7	0.0	0.1	10.49	0.00	0.14	595	0	1	370	0	1
NAPTHENES	8.2	0.1	0.9	1.60	0.43	1.29	98	2	11	61	1	7
AROMATICS	119.3	0.9	9.0	23.30	3.85	12.91	1337	15	100	831	9	62
BENZENE	13.7	0.3	2.2	2.68	1.28	3.16	152	5	24	94	3	15
TOLUENE	35.6	0.4	2.9	6.95	1.71	4.16	399	7	32	248	4	20
C8+AROM	70.0	0.2	3.9	13.67	0.85	5.60	798	3	44	496	2	27
UNKNOWN	38.7	0.3	1.2	0.00	0.00	0.00	442	5	14	275	3	8
INDIVIDUAL COMPONENTS												
METHANE	51.2	12.1	18.2	10.00	51.71	26.11	699	240	245	434	149	153
ETHYLENE	28.2	0.7	6.1	5.51	2.99	8.75	337	12	72	209	8	45
ETHANE	3.7	1.5	2.6	0.72	6.41	3.73	47	28	33	29	17	20
ACETYLENE	53.7	0.0	0.1	10.49	0.00	0.14	595	0	1	370	0	1
C3 + C3=	10.4	0.2	1.2	2.03	0.85	1.72	124	3	14	77	2	9
C=C=C	0.1	0.0	0.0	0.02	0.00	0.00	1	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.2	0.2	0.5	0.23	0.85	0.72	15	4	6	9	2	4
B1 + IB	5.1	0.0	0.0	1.00	0.00	0.00	61	0	0	38	0	0
NC4 +B=1=3	13.7	1.4	4.7	2.68	5.98	6.74	169	25	57	105	16	36
TBUTENE-2	1.2	0.0	0.3	0.23	0.00	0.43	14	0	4	9	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.9	0.0	0.2	0.18	0.00	0.29	11	0	2	7	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.5	0.0	0.0	0.10	0.00	0.00	6	0	0	4	0	0
ISOPENTANE	13.8	1.1	3.6	2.70	4.70	5.17	169	20	44	105	12	27
PENTENE-1	0.5	0.0	0.0	0.10	0.00	0.00	6	0	0	4	0	0
2MBUT-1	0.7	0.0	0.0	0.14	0.00	0.00	8	0	0	5	0	0
NPENTANE	2.7	0.2	0.7	0.53	0.85	1.00	33	4	8	21	2	5
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120603
DATE RUN: 02 28 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738M156902 DRIVEN: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.6	0.0	0.1	0.31	0.00	0.14	19	0	1	12	0	1
CISPENT-2	0.7	0.0	0.0	0.14	0.00	0.00	8	0	0	5	0	0
2MBUT-2	3.0	0.0	0.3	0.59	0.00	0.43	36	0	4	22	0	2
22MBUTANE	0.6	0.1	0.9	0.12	0.43	1.29	7	2	11	5	1	7
CYPENTENE	0.4	0.0	0.0	0.08	0.00	0.00	5	0	0	3	0	0
3MPENTENE	0.3	0.0	0.0	0.06	0.00	0.00	4	0	0	2	0	0
CYPENTANE	0.3	0.0	0.1	0.06	0.00	0.14	4	0	1	2	0	1
23MBUTANE	3.5	0.2	0.6	0.68	0.85	0.86	43	4	7	27	2	5
2MPENTANE	7.2	0.3	1.1	1.41	1.28	1.58	88	5	13	55	3	8
3MPENTANE	5.2	0.3	0.9	1.02	1.28	1.29	64	5	11	39	3	7
HEXENE-1	1.1	0.0	0.1	0.21	0.00	0.14	13	0	1	8	0	1
N HEXANE	3.2	0.1	0.5	0.63	0.43	0.72	39	2	6	24	1	4
TC6=3,=2	3.0	0.0	0.3	0.59	0.00	0.43	36	0	4	22	0	2
CC6=3	0.6	0.0	0.0	0.12	0.00	0.00	7	0	0	4	0	0
2MPENTENE2	0.6	0.0	0.0	0.12	0.00	0.00	7	0	0	4	0	0
MCYP43M2C5	3.9	0.1	0.5	0.76	0.43	0.72	47	2	6	29	1	4
24MPENTANE	8.5	0.3	1.2	1.66	1.28	1.72	104	5	14	64	3	9
BENZENE	13.7	0.3	2.2	2.68	1.28	3.16	152	5	24	94	3	15
CYHEXANE	0.9	0.0	0.0	0.18	0.00	0.00	11	0	0	7	0	0
2MC6+23MC5	19.1	0.5	2.3	3.73	2.14	3.30	233	9	28	145	6	17
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	6.4	0.2	0.8	1.25	0.85	1.15	78	4	10	48	2	6
224MPENTAN	38.6	1.6	5.3	7.54	6.84	7.60	469	28	64	292	18	40
NHEPTANE	5.9	0.1	0.6	1.15	0.43	0.86	72	2	7	45	1	4
MCYHEXANE	1.6	0.0	0.2	0.31	0.00	0.29	19	0	2	12	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	8.4	0.2	0.9	1.64	0.85	1.29	102	4	11	63	2	7
234MC5	9.2	0.2	1.0	1.80	0.85	1.43	112	4	12	69	2	7
TOLUENE	35.6	0.4	2.9	6.95	1.71	4.16	399	7	32	248	4	20
23MC6+4MC7	4.7	0.1	0.6	0.92	0.43	0.86	57	2	7	35	1	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120603
DATE RUN: 02 28 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVEN: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	5.7	0.1	0.6	1.11	0.43	0.86	69	2	7	43	1	4
3MHEPTANE	5.2	0.1	0.5	1.02	0.43	0.72	63	2	6	39	1	4
255MC6	5.4	0.1	0.6	1.05	0.43	0.86	65	2	7	41	1	4
N OCTANE	3.2	0.1	0.3	0.63	0.43	0.43	39	2	4	24	1	2
223MC6	0.7	0.0	0.1	0.14	0.00	0.14	8	0	1	5	0	1
ETCYHEXANE	1.5	0.0	0.1	0.29	0.00	0.14	18	0	1	11	0	1
ET BENZENE	5.6	0.0	0.3	1.09	0.00	0.43	63	0	3	39	0	2
M+PXYLENE	22.3	0.1	1.3	4.36	0.43	1.87	252	2	15	157	1	9
2+4MC8	3.3	0.1	0.4	0.64	0.43	0.57	40	2	5	25	1	3
O XYLENE	9.3	0.1	0.5	1.82	0.43	0.72	105	2	6	65	1	3
N NONANE	2.2	0.0	0.3	0.43	0.00	0.43	27	0	4	17	0	2
IPRBENZENE	2.2	0.0	0.2	0.43	0.00	0.29	25	0	2	16	0	1
NPRBENZENE	1.6	0.0	0.1	0.31	0.00	0.14	18	0	1	11	0	1
1M3ETBENZ	7.5	0.0	0.4	1.46	0.00	0.57	85	0	4	53	0	3
135MEBENZ	3.1	0.0	0.1	0.61	0.00	0.14	35	0	1	22	0	1
1M2ETBENZ	3.2	0.0	0.3	0.63	0.00	0.43	36	0	3	23	0	2
124MBENZ	9.3	0.0	0.5	1.82	0.00	0.72	106	0	6	66	0	3
SBUBENZENE	1.1	0.0	0.1	0.21	0.00	0.14	13	0	1	8	0	1
N DECANE	0.7	0.0	0.1	0.14	0.00	0.14	8	0	1	5	0	1
123MBENZ	2.2	0.0	0.1	0.43	0.00	0.14	25	0	1	16	0	1
INDANE	0.4	0.0	0.0	0.08	0.00	0.00	4	0	0	3	0	0
13EBENZENE	0.3	0.0	0.0	0.06	0.00	0.00	3	0	0	2	0	0
NBUBENZENE	0.6	0.0	0.0	0.12	0.00	0.00	7	0	0	4	0	0
1M3PRBENZ	1.3	0.0	0.0	0.25	0.00	0.00	15	0	0	9	0	0
UNKNOWNS	38.7	0.3	1.2	7.56	1.28	1.72	442	5	14	275	3	8

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120701
DATE RUN: 02 02 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 70

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	464.9	21.2	57.2
GC PPMC	463.3	21.3	57.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	42.0	10.9	15.5	9.07	51.17	27.05	560	190	200	348	118	124
SATURATES	172.5	5.8	24.7	37.23	27.23	43.11	2060	91	285	1281	56	177
OLEFINS	56.3	1.7	6.6	12.15	7.98	11.52	657	26	74	408	16	46
ACETYLENE	40.0	0.0	0.0	8.63	0.00	0.00	433	0	0	269	0	0
NAPTHENES	7.5	0.1	0.6	1.62	0.47	1.05	87	2	7	54	1	4
AROMATICS	116.8	2.6	7.9	25.21	12.21	13.79	1280	37	84	795	23	52
BENZENE	12.5	0.5	1.8	2.70	2.35	3.14	135	7	19	84	4	12
TOLUENE	35.9	0.6	2.4	7.75	2.82	4.19	393	9	25	244	5	16
C8+ARUM	68.4	1.5	3.7	14.76	7.04	6.46	762	22	40	473	14	25
UNKNOWN	28.2	0.2	2.0	0.00	0.00	0.00	315	3	22	196	2	13
INDIVIDUAL COMPONENTS												
METHANE	42.0	10.9	15.5	9.07	51.17	27.05	560	190	200	348	118	124
ETHYLENE	26.1	0.7	4.8	5.63	3.29	8.38	304	11	54	189	7	34
ETHANE	3.5	1.4	2.4	0.76	6.57	4.19	44	23	29	27	14	18
ACETYLENE	40.0	0.0	0.0	8.63	0.00	0.00	433	0	0	269	0	0
C3 + C3=	9.8	0.0	1.1	2.12	0.00	1.92	114	0	12	71	0	8
C=C=C	0.2	0.0	0.0	0.04	0.00	0.00	2	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.5	0.1	0.5	0.32	0.47	0.87	18	2	6	11	1	4
B1 + IB	4.9	1.0	0.0	1.06	4.69	0.00	57	15	0	36	9	0
NC4 +B=1=3	13.9	0.0	4.2	3.00	0.00	7.33	168	0	49	104	0	30
TBUTENE-2	1.2	0.0	0.2	0.26	0.00	0.35	14	0	2	9	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.1	0.0	0.1	0.24	0.00	0.17	13	0	1	8	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.4	0.0	0.0	0.09	0.00	0.00	5	0	0	3	0	0
ISOPENTANE	12.6	0.7	2.9	2.72	3.29	5.06	151	11	34	94	7	21
PENTENE-1	0.6	0.0	0.0	0.13	0.00	0.00	7	0	0	4	0	0
2MBUT-1	0.8	0.0	0.0	0.17	0.00	0.00	9	0	0	6	0	0
NPENTANE	2.3	0.1	0.5	0.50	0.47	0.87	28	2	6	17	1	4
2MB=1=3	0.3	0.0	0.0	0.06	0.00	0.00	3	0	0	2	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120701
DATE RUN: 02 02 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K473RH156902 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	1.5	0.0	0.1	0.32	0.00	0.17	17	0	1	11	0	1
CISPENT-2	0.7	0.0	0.0	0.15	0.00	0.00	8	0	0	5	0	0
2MBUT-2	3.1	0.0	0.2	0.67	0.00	0.35	36	0	2	22	0	1
22MBUTANE	0.7	0.2	0.5	0.15	0.94	0.87	8	3	6	5	2	4
CYPENTENE	0.4	0.0	0.0	0.09	0.00	0.00	5	0	0	3	0	0
3MPENTENE	0.3	0.0	0.0	0.06	0.00	0.00	3	0	0	2	0	0
CYPENTANE	0.3	0.0	0.0	0.06	0.00	0.00	3	0	0	2	0	0
23MBUTANE	3.3	0.1	0.4	0.71	0.47	0.70	39	2	5	24	1	3
2MPENTANE	7.5	0.2	0.8	1.62	0.94	1.40	90	3	9	56	2	6
3MPENTANE	4.3	0.2	0.6	0.93	0.94	1.05	51	3	7	32	2	4
HEXENE-1	0.9	0.0	0.0	0.19	0.00	0.00	10	0	0	7	0	0
N HEXANE	2.9	0.1	0.3	0.63	0.47	0.52	35	2	3	22	1	2
TC6=3,=2	2.8	0.0	0.1	0.60	0.00	0.17	33	0	1	20	0	1
CC6=3	0.5	0.0	0.0	0.11	0.00	0.00	6	0	0	4	0	0
2MPENTENE2	0.7	0.0	0.0	0.15	0.00	0.00	8	0	0	5	0	0
MCYP43M2C5	3.5	0.1	0.4	0.76	0.47	0.70	41	2	5	25	1	3
24MPENTANE	7.8	0.2	0.8	1.68	0.94	1.40	93	3	9	58	2	6
BENZENE	12.5	0.5	1.8	2.70	2.35	3.14	135	7	19	84	4	12
CYHEXANE	0.8	0.0	0.0	0.17	0.00	0.00	9	0	0	6	0	0
2MC6+23MC5	17.9	0.4	1.7	3.86	1.88	2.97	213	6	20	132	4	12
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	6.1	0.1	0.6	1.32	0.47	1.05	73	2	7	45	1	4
224MPENTAN	35.8	1.1	4.0	7.73	5.16	6.98	425	17	46	264	11	29
NHEPTANE	6.0	0.1	0.5	1.30	0.47	0.87	71	2	6	44	1	4
MCYHEXANE	1.5	0.0	0.1	0.32	0.00	0.17	17	0	1	11	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	7.8	0.1	0.7	1.68	0.47	1.22	93	2	8	58	1	5
234MC5	9.3	0.2	0.7	2.01	0.94	1.22	110	3	8	69	2	5
TOLUENE	35.9	0.6	2.4	7.75	2.82	4.19	393	9	25	244	5	16
23MC6+4MC7	4.5	0.1	0.5	0.97	0.47	0.87	53	2	6	33	1	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTURS

TEST NO.: 120701
DATE RUN: 02 02 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K473BH156902 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	5.5	0.1	0.5	1.19	0.47	0.87	65	2	6	41	1	4
3MHEPTANE	5.0	0.1	0.4	1.08	0.47	0.70	59	2	5	37	1	3
255MC6	5.0	0.1	0.4	1.08	0.47	0.70	59	2	5	37	1	3
N OCTANE	3.1	0.0	0.2	0.67	0.00	0.35	37	0	2	23	0	1
223MC6	0.6	0.0	0.0	0.13	0.00	0.00	7	0	0	4	0	0
ETCYHEXANE	1.4	0.0	0.1	0.30	0.00	0.17	16	0	1	10	0	1
ET BENZENE	5.7	0.1	0.2	1.23	0.47	0.35	63	1	2	39	1	1
M+PXYLENE	22.6	0.5	1.0	4.88	2.35	1.75	249	7	11	155	4	7
2+4MC8	3.1	0.0	0.3	0.67	0.00	0.52	37	0	3	23	0	2
O XYLENE	9.2	0.1	0.4	1.99	0.47	0.70	102	1	4	63	1	3
N NONANE	2.0	0.1	0.3	0.43	0.47	0.52	24	2	3	15	1	2
IPRBENZENE	1.9	0.0	0.2	0.41	0.00	0.35	21	0	2	13	0	1
NPRBENZENE	1.5	0.0	0.0	0.32	0.00	0.00	17	0	0	10	0	0
1M3ETBENZ	7.3	0.2	0.3	1.58	0.94	0.52	81	3	3	50	2	2
135MEBENZ	3.0	0.2	0.0	0.65	0.94	0.00	33	3	0	21	2	0
1M2ETBENZ	2.6	0.0	0.4	0.56	0.00	0.70	29	0	4	18	0	3
124MBENZ	9.1	0.3	0.8	1.96	1.41	1.40	101	4	9	63	3	5
SBUBENZENE	0.8	0.1	0.3	0.17	0.47	0.52	9	1	3	6	1	2
N DECANE	0.5	0.0	0.0	0.11	0.00	0.00	6	0	0	4	0	0
123MBENZ	2.1	0.0	0.1	0.45	0.00	0.17	23	0	1	14	0	1
INDANE	0.8	0.0	0.0	0.17	0.00	0.00	9	0	0	5	0	0
13EBENZENE	0.2	0.0	0.0	0.04	0.00	0.00	2	0	0	1	0	0
NBUBENZENE	0.5	0.0	0.0	0.11	0.00	0.00	6	0	0	3	0	0
1M3PRBENZ	1.1	0.0	0.0	0.24	0.00	0.00	12	0	0	8	0	0
UNKNOWNS	28.2	0.2	2.0	6.09	0.94	3.49	315	3	22	196	2	13

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120702
DATE RUN: 02 27 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: SUNNER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 70

HYDROCARBON CONCENTRATION

	BAG1	BAG2	BAG3
FID PPMC	379.8	24.1	74.4
GC PPMC	396.4	25.4	68.4

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	39.5	10.4	16.3	9.96	40.95	23.83	505	183	233	314	114	145
SATURATES	137.4	8.3	32.7	34.66	32.68	47.81	1572	131	418	977	81	260
OLEFINS	51.8	0.8	8.1	13.07	3.15	11.84	579	12	101	360	8	63
ACETYLENE	38.4	0.0	0.3	9.69	0.00	0.44	398	0	3	248	0	2
NAPTHENES	6.1	0.1	1.0	1.54	0.39	1.46	68	2	12	42	1	8
AROMATICS	96.3	3.9	8.5	24.29	15.35	12.43	1011	56	100	628	35	62
BENZENE	10.8	0.4	2.4	2.72	1.57	3.51	112	6	28	70	4	17
TOLUENE	28.6	0.6	3.0	7.21	2.36	4.39	300	9	35	187	5	22
C8+AROM	56.9	2.9	3.1	14.35	11.42	4.53	607	43	37	377	27	23
UNKNOWN	26.9	1.9	1.5	0.00	0.00	0.00	288	28	18	179	17	11
INDIVIDUAL COMPONENTS												
METHANE	39.5	10.4	16.3	9.96	40.95	23.83	505	183	233	314	114	145
ETHYLENE	24.8	0.7	5.6	6.26	2.76	8.19	277	11	70	172	7	43
ETHANE	3.3	1.3	2.5	0.83	5.12	3.65	40	21	33	25	13	21
ACETYLENE	38.4	0.0	0.3	9.69	0.00	0.44	398	0	3	248	0	2
C3 + C3=	9.7	0.1	1.1	2.45	0.39	1.61	108	2	14	67	1	9
C=C=C	0.1	0.0	0.0	0.03	0.00	0.00	1	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.8	0.1	0.6	0.20	0.39	0.88	9	2	8	6	1	5
B1 + IB	4.9	0.0	0.0	1.24	0.00	0.00	55	0	0	34	0	0
NC4 +B=1=3	10.2	1.2	5.1	2.57	4.72	7.46	118	19	66	73	12	41
TBUTENE-2	1.1	0.0	0.2	0.28	0.00	0.29	12	0	2	8	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.8	0.0	0.2	0.20	0.00	0.29	9	0	2	6	0	2
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.4	0.0	0.0	0.10	0.00	0.00	4	0	0	3	0	0
ISOPENTANE	9.6	1.0	3.9	2.42	3.94	5.70	110	16	50	69	10	31
PENTENE-1	0.4	0.0	0.0	0.10	0.00	0.00	4	0	0	3	0	0
2MBUT-1	0.6	0.0	0.0	0.15	0.00	0.00	7	0	0	4	0	0
NPENTANE	1.9	0.2	0.7	0.48	0.79	1.02	22	3	9	14	2	6
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120702
DATE RUN: 02 27 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.3	0.0	0.1	0.33	0.00	0.15	15	0	1	9	0	1
CISPENT-2	0.5	0.0	0.0	0.13	0.00	0.00	6	0	0	3	0	0
2MBUT-2	2.4	0.0	0.4	0.61	0.00	0.58	27	0	5	17	0	3
22MBUTANE	0.3	0.2	0.5	0.08	0.79	0.73	3	3	6	2	2	4
CYPENTENE	0.3	0.0	0.0	0.08	0.00	0.00	3	0	0	2	0	0
3MPENTENE	0.2	0.0	0.0	0.05	0.00	0.00	2	0	0	1	0	0
CYPENTANE	0.2	0.0	0.1	0.05	0.00	0.15	2	0	1	1	0	1
23MBUTANE	2.5	0.1	0.6	0.63	0.39	0.88	29	2	8	18	1	5
2MPENTANE	5.3	0.4	1.3	1.34	1.57	1.90	61	6	17	38	4	10
3MPENTANE	4.8	0.2	1.1	1.21	0.79	1.61	55	3	14	34	2	9
HEXENE-1	1.0	0.0	0.1	0.25	0.00	0.15	11	0	1	7	0	1
N HEXANE	2.5	0.1	0.5	0.63	0.39	0.73	29	2	6	18	1	4
TC6=3,=2	2.3	0.0	0.3	0.58	0.00	0.44	26	0	4	16	0	2
CC6=3	0.5	0.0	0.1	0.13	0.00	0.15	6	0	1	3	0	1
2MPENTENE2	0.5	0.0	0.0	0.13	0.00	0.00	6	0	0	3	0	0
MCYP43M2C5	2.9	0.1	0.6	0.73	0.39	0.88	32	2	7	20	1	5
24MPENTANE	6.3	0.3	1.2	1.59	1.18	1.75	72	5	15	45	3	9
BENZENE	10.8	0.4	2.4	2.72	1.57	3.51	112	6	28	70	4	17
CYHEXANE	0.7	0.0	0.0	0.18	0.00	0.00	8	0	0	5	0	0
2MC6+23MC5	14.2	0.5	2.4	3.58	1.97	3.51	162	8	31	101	5	19
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	4.7	0.2	0.8	1.19	0.79	1.17	54	3	10	33	2	6
224MPENTAN	28.9	1.4	5.6	7.29	5.51	8.19	329	22	71	204	14	44
NHEPTANE	4.6	0.1	0.6	1.16	0.39	0.88	52	2	8	33	1	5
MCYHEXANE	1.2	0.0	0.2	0.30	0.00	0.29	13	0	2	8	0	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	6.3	0.2	0.9	1.59	0.79	1.32	72	3	11	45	2	7
234MC5	7.0	0.2	1.0	1.77	0.79	1.46	80	3	13	49	2	8
TOLUENE	28.6	0.6	3.0	7.21	2.36	4.39	300	9	35	187	5	22
23MC6+4MC7	3.7	0.1	0.6	0.93	0.39	0.88	42	2	8	26	1	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120702
DATE RUN: 02 27 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	4.4	0.1	0.6	1.11	0.39	0.88	50	2	8	31	1	5
3MHEPTANE	3.9	0.1	0.5	0.98	0.39	0.73	44	2	6	28	1	4
PENTANE	4.2	0.1	0.6	1.06	0.39	0.88	48	2	8	30	1	5
N OCTANE	2.3	0.1	0.3	0.58	0.39	0.44	26	2	4	16	1	2
223MC6	0.5	0.0	0.1	0.13	0.00	0.15	6	0	1	4	0	1
ETCYHEXANE	1.1	0.0	0.1	0.28	0.00	0.15	12	0	1	8	0	1
ET BENZENE	4.6	0.1	0.3	1.16	0.39	0.44	49	1	4	30	1	2
M+PXYLENE	17.9	0.8	1.2	4.52	3.15	1.75	189	12	14	118	7	9
244MC8	2.6	0.0	0.4	0.66	0.00	0.58	30	0	5	18	0	3
O XYLENE	7.5	0.3	0.5	1.89	1.18	0.73	79	4	6	49	3	4
N NONANE	2.0	0.1	0.3	0.50	0.39	0.44	23	2	4	14	1	2
IPRBENZENE	1.6	0.0	0.2	0.40	0.00	0.29	17	0	2	11	0	1
NPRBENZENE	1.3	0.0	0.0	0.33	0.00	0.00	14	0	0	9	0	0
1M3ETBENZ	6.0	0.4	0.4	1.51	1.57	0.58	64	6	5	40	4	3
135MEBENZ	2.5	0.2	0.1	0.63	0.79	0.15	27	3	1	17	2	1
1M2ETBENZ	2.3	0.2	0.1	0.58	0.79	0.15	24	3	1	15	2	1
124MBENZ	7.7	0.8	0.3	1.94	3.15	0.44	82	12	4	51	7	2
SBUBENZENE	0.8	0.1	0.0	0.20	0.39	0.00	9	1	0	5	1	0
N DECANE	0.6	0.0	0.0	0.15	0.00	0.00	7	0	0	4	0	0
123MBENZ	1.8	0.0	0.0	0.45	0.00	0.00	19	0	0	12	0	0
INDANE	1.1	0.0	0.0	0.28	0.00	0.00	12	0	0	7	0	0
13EBENZENE	0.3	0.0	0.0	0.08	0.00	0.00	3	0	0	2	0	0
NBUBENZENE	0.5	0.0	0.0	0.13	0.00	0.00	5	0	0	3	0	0
1M3PRBENZ	1.0	0.0	0.0	0.25	0.00	0.00	11	0	0	7	0	0
UNKNOWNS	26.9	1.9	1.5	6.79	7.48	2.19	288	28	18	179	17	11

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120801
DATE RUN: 02 05 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K473BH156902 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	334.9	20.5	58.4
GC PPMC	350.5	18.1	53.5

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
MAJOR COMPONENTS												
METHANE	36.4	11.0	15.8	10.39	60.77	29.53	470	230	226	292	143	141
SATURATES	122.9	5.7	26.0	35.06	31.49	48.60	1420	107	333	883	66	207
OLEFINS	49.9	0.5	4.8	14.24	2.76	8.97	563	9	60	350	6	37
ACETYLENE	31.4	0.0	0.0	8.96	0.00	0.00	329	0	0	204	0	0
NAPTHENES	5.8	0.1	0.6	1.65	0.55	1.12	65	2	8	41	1	5
AROMATICS	85.3	0.8	5.8	24.34	4.42	10.84	904	14	68	562	9	42
BENZENE	9.8	0.3	1.6	2.80	1.66	2.99	103	5	19	64	3	12
TOLUENE	26.6	0.3	1.9	7.59	1.66	3.55	282	5	22	175	3	14
C8+AROM	48.9	0.2	2.3	13.95	1.10	4.30	527	3	27	327	2	17
UNKNOWN	18.8	0.0	0.5	0.00	0.00	0.00	203	0	6	126	0	4
INDIVIDUAL COMPONENTS												
METHANE	36.4	11.0	15.8	10.39	60.77	29.53	470	230	226	292	143	141
ETHYLENE	23.6	0.5	3.5	6.73	2.76	6.54	266	9	44	166	6	27
ETHANE	3.4	1.2	2.2	0.97	6.63	4.11	41	23	30	26	15	18
ACETYLENE	31.4	0.0	0.0	8.96	0.00	0.00	329	0	0	204	0	0
C3 + C3=	9.6	0.0	0.7	2.74	0.00	1.31	108	0	9	67	0	5
C=C=C	0.3	0.0	0.0	0.09	0.00	0.00	3	0	0	2	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.3	0.1	0.5	0.37	0.55	0.93	15	2	6	9	1	4
B1 + IB	4.9	0.0	0.0	1.40	0.00	0.00	55	0	0	34	0	0
NC4 +B=1=3	11.0	0.9	4.8	3.14	4.97	8.97	129	17	62	80	11	39
TBUTENE-2	1.1	0.0	0.2	0.31	0.00	0.37	12	0	3	8	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.0	0.0	0.1	0.29	0.00	0.19	11	0	1	7	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.4	0.0	0.0	0.11	0.00	0.00	5	0	0	3	0	0
ISOPENTANE	9.5	0.6	3.2	2.71	3.31	5.98	110	11	41	69	7	26
PENTENE-1	0.4	0.0	0.0	0.11	0.00	0.00	5	0	0	3	0	0
2MBUT-1	0.7	0.0	0.0	0.20	0.00	0.00	8	0	0	5	0	0
NPENTANE	1.7	0.1	0.5	0.49	0.55	0.93	20	2	6	12	1	4
2MB=1=3	0.3	0.0	0.0	0.09	0.00	0.00	3	0	0	2	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120801
DATE RUN: 02 05 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.1	0.0	0.1	0.31	0.00	0.19	12	0	1	8	0	1
CISPENT-2	0.5	0.0	0.0	0.14	0.00	0.00	6	0	0	4	0	0
2MBUT-2	2.1	0.0	0.2	0.60	0.00	0.37	24	0	3	15	0	2
22MBUTANE	0.6	0.1	1.2	0.17	0.55	2.24	7	2	15	4	1	10
CYPENTENE	0.3	0.0	0.0	0.09	0.00	0.00	3	0	0	2	0	0
3MPENTENE	0.2	0.0	0.0	0.06	0.00	0.00	2	0	0	1	0	0
CYPENTANE	0.2	0.0	0.0	0.06	0.00	0.00	2	0	0	1	0	0
23MBUTANE	2.3	0.1	0.4	0.66	0.55	0.75	27	2	5	17	1	3
2MPENTANE	5.5	0.2	0.8	1.57	1.10	1.50	64	4	10	40	2	6
3MPENTANE	3.0	0.1	0.6	0.86	0.55	1.12	35	2	8	22	1	5
HEXENE-1	0.7	0.0	0.0	0.20	0.00	0.00	8	0	0	5	0	0
N HEXANE	2.0	0.1	0.4	0.57	0.55	0.75	23	2	5	14	1	3
TC6=3,=2	1.9	0.0	0.0	0.54	0.00	0.00	21	0	0	13	0	0
CC6=3	0.4	0.0	0.0	0.11	0.00	0.00	5	0	0	3	0	0
2MPENTENE2	0.4	0.0	0.0	0.11	0.00	0.00	5	0	0	3	0	0
MCYP43M2C5	2.5	0.1	0.4	0.71	0.55	0.75	28	2	5	18	1	3
24MPENTANE	5.3	0.2	0.8	1.51	1.10	1.50	61	4	10	38	2	6
BENZENE	9.8	0.3	1.6	2.80	1.66	2.99	103	5	19	64	3	12
CYHEXANE	1.2	0.0	0.0	0.34	0.00	0.00	14	0	0	8	0	0
2MC6+23MC5	12.1	0.3	1.8	3.45	1.66	3.36	139	6	23	87	3	14
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	4.2	0.1	0.6	1.20	0.55	1.12	48	2	8	30	1	5
224MPENTAN	25.1	0.9	4.0	7.16	4.97	7.48	288	17	51	179	10	32
NHEPTANE	4.0	0.1	0.5	1.14	0.55	0.93	46	2	6	29	1	4
MCYHEXANE	1.0	0.0	0.1	0.29	0.00	0.19	11	0	1	7	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	5.5	0.1	0.7	1.57	0.55	1.31	63	2	9	39	1	6
234MC5	6.1	0.1	0.7	1.74	0.55	1.31	70	2	9	44	1	6
TOLUENE	26.6	0.3	1.9	7.59	1.66	3.55	282	5	22	175	3	14
23MC6+4MC7	3.2	0.1	0.4	0.91	0.56	0.75	37	2	5	23	1	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120801
DATE RUN: 02 05 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K47J8M156902 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	3.9	0.1	0.4	1.11	0.55	0.75	45	2	5	28	1	3
3MHEPTANE	3.5	0.1	0.4	1.00	0.55	0.75	40	2	5	25	1	3
255MC6	3.1	0.1	0.4	0.88	0.55	0.75	36	2	5	22	1	3
N OCTANE	2.1	0.0	0.2	0.60	0.00	0.37	24	0	3	15	0	2
223MC6	0.4	0.0	0.0	0.11	0.00	0.00	5	0	0	3	0	0
ETCYHEXANE	0.9	0.0	0.1	0.26	0.00	0.19	10	0	1	6	0	1
ET BENZENE	4.2	0.0	0.2	1.20	0.00	0.37	45	0	2	28	0	1
M+PXYLENE	16.2	0.1	0.7	4.62	0.55	.31	173	2	8	108	1	5
2+4MC8	2.2	0.0	0.3	0.63	0.00	0.56	25	0	4	16	0	2
O XYLENE	6.7	0.0	0.3	1.91	0.00	0.56	72	0	4	44	0	2
N NONANE	1.6	0.0	0.2	0.46	0.00	0.37	18	0	3	11	0	2
IPRBENZENE	1.4	0.0	0.1	0.40	0.00	0.19	15	0	1	9	0	1
NPRBENZENE	1.0	0.0	0.1	0.29	0.00	0.19	11	0	1	7	0	1
1M3ETBENZ	5.2	0.0	0.2	1.48	0.00	0.37	56	0	2	35	0	1
135MEBENZ	2.1	0.1	0.3	0.60	0.55	0.56	23	2	4	14	1	2
1M2ETBENZ	1.8	0.0	0.1	0.51	0.00	0.19	19	0	1	12	0	1
124MBENZ	6.5	0.0	0.1	1.85	0.00	0.19	70	0	1	43	0	1
SBUBENZENE	0.6	0.0	0.1	0.17	0.00	0.19	6	0	1	4	0	1
N DECANE	0.3	0.0	0.0	0.09	0.00	0.00	3	0	0	2	0	0
123MBENZ	1.5	0.0	0.1	0.43	0.00	0.19	16	0	1	10	0	1
INDANE	0.5	0.0	0.0	0.14	0.00	0.00	5	0	0	3	0	0
13EBENZENE	0.1	0.0	0.0	0.03	0.00	0.00	1	0	0	1	0	0
MBUBENZENE	0.3	0.0	0.0	0.09	0.00	0.00	3	0	0	2	0	0
1M3PRBENZ	0.8	0.0	0.0	0.23	0.00	0.00	9	0	0	5	0	0
UNKNOWNS	18.8	0.0	0.5	5.36	0.00	0.93	203	0	6	126	0	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120802
DATE RUN: 02 26 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738M156902 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	297.2	23.9	119.6
GC PPMC	298.6	21.4	111.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	31.1	12.0	22.5	10.42	56.08	20.22	411	242	317	256	150	197
SATURATES	99.9	7.1	45.4	33.46	33.18	40.79	1183	128	572	735	80	355
OLEFINS	43.0	0.7	14.6	14.40	3.27	13.12	497	12	180	309	8	112
ACETYLENE	24.6	0.0	3.7	8.24	0.00	3.32	264	0	42	164	0	26
NAPTHENES	4.5	0.1	1.6	1.51	0.47	1.44	52	2	20	32	1	12
AROMATICS	72.1	0.9	20.0	24.15	4.21	17.97	783	15	231	487	9	144
BENZENE	8.5	0.4	3.7	2.85	1.87	3.32	91	7	42	57	4	26
TOLUENE	21.6	0.3	6.3	7.23	1.40	5.66	235	5	73	146	3	45
C8+AROM	42.0	0.2	10.0	14.07	0.93	8.98	464	3	117	288	2	73
UNKNOWN	23.4	0.6	3.5	0.00	0.00	0.00	259	10	41	161	6	26
INDIVIDUAL COMPONENTS												
METHANE	31.1	12.0	22.5	10.42	56.08	20.22	411	242	317	256	150	197
ETHYLENE	20.8	0.5	9.1	6.97	2.34	8.18	241	9	112	150	5	70
ETHANE	3.1	1.3	2.8	1.04	6.07	2.52	38	25	37	24	15	23
ACETYLENE	24.6	0.0	3.7	8.24	0.00	3.32	264	0	42	164	0	26
C3 + C3=	8.3	0.2	2.1	2.78	0.93	1.89	96	4	26	60	2	16
C=C=C	0.1	0.0	0.0	0.03	0.00	0.00	1	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.7	0.1	0.6	0.23	0.47	0.54	8	2	8	5	1	5
B1 + IB	4.4	0.0	0.5	1.47	0.00	0.45	51	0	6	32	0	4
NC4 +B=1=3	7.9	1.1	5.7	2.65	9.14	5.12	95	20	73	59	12	45
TBUTENE-2	0.9	0.0	0.4	0.30	0.00	0.36	10	0	5	6	0	3
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.7	0.0	0.4	0.23	0.00	0.36	8	0	5	5	0	3
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.3	0.0	0.1	0.10	0.00	0.09	3	0	1	2	0	1
ISOPENTANE	7.1	0.8	4.5	2.38	3.74	4.04	84	15	57	53	9	35
PENTENE-1	0.3	0.0	0.1	0.10	0.00	0.09	3	0	1	2	0	1
2MBUT-1	0.5	0.0	0.0	0.17	0.00	0.00	6	0	0	4	0	0
NPENTANE	1.3	0.2	0.9	0.44	0.93	0.81	15	4	11	10	2	7
2MB=1=3	0.2	0.0	0.0	0.07	0.00	0.00	2	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120802
DATE RUN: 02 26 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.9	0.0	0.3	0.30	0.00	0.27	10	0	4	6	0	2
CISPENT-2	0.4	0.0	0.1	0.13	0.00	0.09	5	0	1	3	0	1
2MBUT-2	1.8	0.0	0.6	0.60	0.00	0.54	21	0	7	13	0	5
22MBUTANE	0.3	0.1	0.7	0.10	0.47	0.63	4	2	9	2	1	5
CYPENTENE	0.2	0.0	0.1	0.07	0.00	0.09	2	0	1	1	0	1
3MPENTENE	0.2	0.0	0.0	0.07	0.00	0.00	2	0	0	1	0	0
CYPENTANE	0.2	0.0	0.1	0.07	0.00	0.09	2	0	1	1	0	1
23MBUTANE	1.7	0.1	0.8	0.57	0.47	0.72	20	2	10	13	1	6
2MPENTANE	3.9	0.2	1.7	1.31	0.93	1.53	46	4	21	29	2	13
3MPENTANE	2.6	0.2	1.2	0.87	0.93	1.08	31	4	15	19	2	9
HEXENE-1	0.7	0.0	0.2	0.23	0.00	0.18	8	0	2	5	0	2
N HEXANE	1.6	0.1	0.7	0.54	0.47	0.63	19	2	9	12	1	5
TC6=3,=2	1.6	0.0	0.5	0.54	0.00	0.45	19	0	6	12	0	4
CC6=3	0.3	0.0	0.1	0.10	0.00	0.09	3	0	1	2	0	1
2MPENTENE2	0.4	0.0	0.0	0.13	0.00	0.00	5	0	0	3	0	0
MCYP43M2C5	2.1	0.1	0.9	0.70	0.47	0.81	24	2	11	15	1	7
24MPENTANE	4.4	0.2	1.7	1.47	0.93	1.53	52	4	21	32	2	13
BENZENE	8.5	0.4	3.7	2.85	1.87	3.32	91	7	42	57	4	26
CYHEXANE	0.5	0.0	0.0	0.17	0.00	0.00	6	0	0	4	0	0
2MC6+23MC5	10.2	0.4	3.8	3.42	1.87	3.41	120	7	48	75	4	30
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.4	0.1	1.3	1.14	0.47	1.17	40	2	16	25	1	10
224MPENTAN	21.0	1.3	8.2	7.03	6.07	7.37	247	23	103	154	15	64
NHEPTANE	3.3	0.1	1.1	1.11	0.47	0.99	39	2	14	24	1	9
MCYHEXANE	0.9	0.0	0.3	0.30	0.00	0.27	10	0	4	6	0	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	4.7	0.2	1.6	1.57	0.93	1.44	55	4	20	34	2	12
234MC5	5.2	0.2	1.8	1.74	0.93	1.62	61	4	23	38	2	14
TOLUENE	21.6	0.3	6.3	7.23	1.40	5.66	235	5	73	146	3	45
23MC6+4MC7	2.7	0.1	1.0	0.90	0.47	0.90	32	2	13	20	1	8

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120802
DATE RUN: 02 26 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVEN: WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	3.2	0.1	1.1	1.07	0.47	0.99	38	2	14	23	1	9
3MHEPTANE	2.9	0.1	1.0	0.97	0.47	0.90	34	2	13	21	1	8
255MC6	2.8	0.1	1.1	0.94	0.47	0.99	33	2	14	20	1	9
N OCTANE	1.9	0.0	0.6	0.64	0.00	0.54	22	0	8	14	0	5
223MC6	0.4	0.0	0.2	0.13	0.00	0.18	5	0	2	3	0	2
ETCYHEXANE	0.8	0.0	0.3	0.27	0.00	0.27	9	0	4	6	0	2
ET BENZENE	3.6	0.0	0.8	1.21	0.00	0.72	39	0	9	24	0	6
M+PXYLENE	13.5	0.1	3.3	4.52	0.47	2.96	148	2	38	92	1	24
244MC8	1.9	0.0	0.7	0.64	0.00	0.63	22	0	9	14	0	5
O XYLENE	5.6	0.1	1.4	1.88	0.47	1.26	61	2	16	38	1	10
N NONANE	1.3	0.0	0.5	0.44	0.00	0.45	15	0	6	9	0	4
IPRBENZENE	1.2	0.0	0.4	0.40	0.00	0.36	13	0	5	8	0	3
NPRBENZENE	1.0	0.0	0.2	0.33	0.00	0.18	11	0	2	7	0	1
1M3ETBENZ	4.5	0.0	0.9	1.51	0.00	0.81	50	0	11	31	0	7
135MEBENZ	1.8	0.0	0.4	0.60	0.00	0.36	20	0	5	12	0	3
1M2ETBENZ	1.7	0.0	0.5	0.57	0.00	0.45	19	0	6	12	0	4
124MBENZ	5.4	0.0	1.1	1.81	0.00	0.99	59	0	13	37	0	8
SBUBENZENE	0.6	0.0	0.1	0.20	0.00	0.09	7	0	1	4	0	1
N DECANE	0.4	0.0	0.1	0.13	0.00	0.09	5	0	1	3	0	1
123MBENZ	1.3	0.0	0.2	0.44	0.00	0.18	14	0	2	9	0	1
INDANE	0.5	0.0	0.2	0.17	0.00	0.18	5	0	2	3	0	1
13EBENZENE	0.2	0.0	0.1	0.07	0.00	0.09	2	0	1	1	0	1
NBUBENZENE	0.3	0.0	0.1	0.10	0.00	0.09	3	0	1	2	0	1
1M3PRBENZ	0.8	0.0	0.3	0.27	0.00	0.27	9	0	4	6	0	2
UNKNOWNS	23.4	0.6	3.5	7.84	2.80	3.14	259	10	41	161	6	26

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120811
DATE RUN: 02 06 79 AIR CONDITIONER USED
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4Z3AM156902 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	321.9	23.4	73.8
GC PPMC	285.0	21.4	65.8

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	32.4	12.4	17.6	11.37	57.94	26.75	487	223	253	303	139	157
SATURATES	93.2	6.6	30.5	32.70	30.84	46.35	1254	106	393	779	66	244
OLEFINS	43.4	1.2	7.1	15.23	5.61	10.79	570	19	89	354	12	55
ACETYLENE	24.3	0.0	0.0	8.53	0.00	0.00	296	0	0	184	0	0
NAPTHENES	3.7	0.1	0.7	1.30	0.47	1.06	49	2	9	30	1	5
AROMATICS	73.4	1.0	8.2	25.75	4.67	12.46	906	15	97	563	9	60
BENZENE	9.7	0.3	2.5	3.40	1.40	3.80	118	4	29	74	3	18
TOLUENE	20.9	0.3	2.6	7.33	1.40	3.95	258	4	31	160	3	19
C8+AROM	42.8	0.4	3.1	15.02	1.87	4.71	537	6	37	334	4	23
UNKNOWN	14.6	0.1	1.7	0.00	0.00	0.00	184	2	20	114	1	13
INDIVIDUAL COMPONENTS												
METHANE	32.4	12.4	17.6	11.37	57.94	26.75	487	223	253	303	139	157
ETHYLENE	21.1	0.6	5.1	7.40	2.80	7.75	277	9	64	172	6	40
ETHANE	2.9	1.2	2.0	1.02	5.61	3.04	41	20	27	25	13	17
ACETYLENE	24.3	0.0	0.0	8.53	0.00	0.00	296	0	0	184	0	0
C3 + C3=	9.0	0.6	1.0	3.16	2.80	1.52	118	9	13	73	6	8
C=C=C	0.2	0.0	0.3	0.07	0.00	0.46	3	0	4	2	0	2
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.9	0.2	0.7	0.32	0.93	1.06	12	3	9	8	2	6
B1 + 1B	4.0	0.0	0.0	1.40	0.00	0.00	53	0	0	33	0	0
NC4 +B=1=3	8.5	1.0	5.7	2.98	4.67	8.66	116	16	74	72	10	46
TBUTENE-2	1.0	0.0	0.2	0.35	0.00	0.30	13	0	3	8	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.8	0.0	0.1	0.28	0.00	0.15	11	0	1	7	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.3	0.0	0.0	0.11	0.00	0.00	4	0	0	2	0	0
ISOPENTANE	7.0	0.7	3.9	2.46	3.27	5.93	95	11	50	59	7	31
PENTENE-1	0.3	0.0	0.0	0.11	0.00	0.00	4	0	0	2	0	0
2MBUT-1	0.4	0.0	0.0	0.14	0.00	0.00	5	0	0	3	0	0
NPENTANE	1.4	0.1	0.7	0.49	0.47	1.06	19	2	9	12	1	6
2MB=1=3	0.2	0.0	0.0	0.07	0.00	0.00	3	0	0	2	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120811
DATE RUN: 02 06 79 AIR CONDITIONER USED
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738M156902 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.9	0.0	0.1	0.32	0.00	0.15	12	0	1	7	0	1
CISPENT-2	0.4	0.0	0.0	0.14	0.00	0.00	5	0	0	3	0	0
2MBUT-2	1.8	0.0	0.3	0.63	0.00	0.46	24	0	4	15	0	2
22MBUTANE	0.2	0.1	0.4	0.07	0.47	0.61	3	2	5	2	1	3
CYPENTENE	0.2	0.0	0.0	0.07	0.00	0.00	3	0	0	2	0	0
3MPENTENE	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.2	0.0	0.0	0.07	0.00	0.00	3	0	0	2	0	0
23MBUTANE	1.8	0.1	0.5	0.63	0.47	0.76	24	2	6	15	1	4
2MPENTANE	4.2	0.2	1.1	1.47	0.93	1.67	56	3	14	35	2	9
3MPENTANE	2.3	0.2	0.7	0.81	0.93	1.06	31	3	9	19	2	6
HEXENE-1	0.6	0.0	0.0	0.21	0.00	0.00	8	0	0	5	0	0
N HEXANE	1.7	0.1	0.4	0.60	0.47	0.61	23	2	5	14	1	3
TC6=3.=2	1.5	0.0	0.0	0.53	0.00	0.00	20	0	0	12	0	0
CC6=3	0.3	0.0	0.0	0.11	0.00	0.00	4	0	0	2	0	0
2MPENTENE2	0.3	0.0	0.0	0.11	0.00	0.00	4	0	0	2	0	0
MCYP4.3M2C5	1.9	0.1	0.5	0.67	0.47	0.76	25	2	6	16	1	4
24MPENTANE	4.1	0.2	1.0	1.44	0.93	1.52	55	3	13	34	2	8
BENZENE	9.7	0.3	2.5	3.40	1.40	3.80	118	4	29	74	3	18
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	9.0	0.4	2.2	3.16	1.87	3.34	121	6	28	75	4	18
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.1	0.1	0.7	1.09	0.47	1.06	42	2	9	26	1	6
224MPENTAN	18.6	1.1	4.7	6.53	5.14	7.14	249	18	60	155	11	37
NHEPTANE	3.0	0.1	0.6	1.05	0.47	0.91	40	2	8	25	1	5
MCYHEXANE	0.8	0.0	0.1	0.28	0.00	0.15	11	0	1	7	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	4.0	0.2	0.8	1.40	0.93	1.22	53	3	10	33	2	6
234MC5	4.4	0.2	0.9	1.54	0.93	1.37	59	3	12	37	2	7
TOLUENE	20.9	0.3	2.6	7.33	1.40	3.95	258	4	31	160	3	19
23MC6+4MC7	2.5	0.1	0.6	0.88	0.47	0.91	33	2	8	21	1	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120811
DATE RUN: 02 06 79 AIR CONDITIONER USED
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738M156902 DRIVEN: WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	2.9	0.1	0.6	1.02	0.47	0.91	39	2	8	24	1	5
3MHEPTANE	2.6	0.1	0.5	0.91	0.47	0.76	35	2	6	22	1	4
255MC6	2.6	0.1	0.5	0.91	0.47	0.76	35	2	6	22	1	4
N OCTANE	1.5	0.0	0.3	0.53	0.00	0.46	20	0	4	12	0	2
223MC6	0.3	0.0	0.1	0.11	0.00	0.15	4	0	1	2	0	1
ETCYHEXANE	0.8	0.0	0.1	0.28	0.00	0.15	11	0	1	7	0	1
ET BENZENE	3.4	0.0	0.2	1.19	0.00	0.30	42	0	2	26	0	1
M+PXYLENE	13.5	0.1	1.1	4.74	0.47	1.67	168	1	13	104	1	8
244MC8	1.8	0.0	0.4	0.63	0.00	0.61	24	0	5	15	0	3
O XYLENE	5.6	0.1	0.5	1.96	0.47	0.76	70	1	6	43	1	4
N NONANE	1.5	0.0	0.5	0.53	0.00	0.76	20	0	6	12	0	4
IPRBENZENE	1.2	0.0	0.4	0.42	0.00	0.61	15	0	5	9	0	3
NPRBENZENE	0.9	0.0	0.1	0.32	0.00	0.15	11	0	1	7	0	1
1M3ETBENZ	4.5	0.1	0.0	1.58	0.47	0.00	56	1	0	35	1	0
135MEBENZ	1.9	0.0	0.2	0.67	0.00	0.30	24	0	2	15	0	1
1M2ETBENZ	1.6	0.1	0.0	0.56	0.47	0.00	20	1	0	12	1	0
124MBENZ	5.7	0.0	0.4	2.00	0.00	0.61	71	0	5	44	0	3
SBUBENZENE	0.6	0.0	0.1	0.21	0.00	0.15	8	0	1	5	0	1
N DECANE	0.4	0.0	0.0	0.14	0.00	0.00	5	0	0	3	0	0
123MBENZ	1.5	0.0	0.1	0.53	0.00	0.15	19	0	1	12	0	1
INDANE	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0
13EBENZENE	0.3	0.0	0.0	0.11	0.00	0.00	4	0	0	2	0	0
NBUBENZENE	0.6	0.0	0.0	0.21	0.00	0.00	8	0	0	5	0	0
1M3PRBENZ	1.4	0.0	0.0	0.49	0.00	0.00	18	0	0	11	0	0
UNKNOWNS	14.6	0.1	1.7	5.12	0.47	2.58	184	2	20	114	1	13

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120812
DATE RUN: 02 23 79 AIR CONDITIONER USED
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4Z38H156902 DRIVER: WARD FUEL: SUNNER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	287.6	27.1	77.4
GC PPMC	271.1	28.6	67.8

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	36.0	9.8	18.9	13.28	34.27	27.88	513	172	283	319	107	176
SATURATES	83.8	8.4	28.7	30.91	29.37	42.33	1069	132	385	664	82	239
OLEFINS	44.1	0.7	8.1	16.27	2.45	11.95	549	11	106	341	7	66
ACETYLENE	26.1	0.0	0.7	9.63	0.00	1.03	302	0	9	188	0	5
NAPTHENES	3.6	0.1	1.0	1.33	0.35	1.47	45	2	13	28	1	8
AROMATICS	61.5	7.1	8.8	22.69	24.83	12.98	719	102	108	447	64	67
BENZENE	10.0	0.6	2.5	3.69	2.10	3.69	116	9	30	72	5	19
TOLUENE	18.6	0.9	2.9	6.86	3.15	4.28	218	13	36	135	8	22
C8+AROM	32.9	5.6	3.4	12.14	19.58	5.01	391	82	43	243	51	26
UNKNOWN	16.0	2.5	1.6	0.00	0.00	0.00	191	37	20	119	23	12
INDIVIDUAL COMPONENTS												
METHANE	36.0	9.8	18.9	13.28	34.27	27.88	513	172	283	319	107	176
ETHYLENE	23.6	0.7	6.1	8.71	2.45	9.00	294	11	80	183	7	50
ETHANE	3.2	1.1	2.3	1.18	3.85	3.39	43	18	32	27	11	20
ACETYLENE	26.1	0.0	0.7	9.63	0.00	1.03	302	0	9	188	0	5
C3 + C3=	8.5	0.0	1.0	3.14	0.00	1.47	106	0	13	66	0	8
C=C=C	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.6	0.1	0.5	0.22	0.35	0.74	8	2	7	5	1	4
B1 + IB	4.3	0.0	0.0	1.59	0.00	0.00	54	0	0	33	0	0
NC4 +B=1=3	6.9	1.4	4.3	2.55	4.90	6.34	89	22	58	55	14	36
TBUTENE-2	0.9	0.0	0.1	0.33	0.00	0.15	11	0	1	7	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.7	0.0	0.1	0.26	0.00	0.15	9	0	1	5	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.3	0.0	0.0	0.11	0.00	0.00	4	0	0	2	0	0
ISOPENTANE	5.8	0.9	3.4	2.14	3.15	5.01	74	14	46	46	9	28
PENTENE-1	0.2	0.0	0.0	0.07	0.00	0.00	2	0	0	2	0	0
2MBUT-1	0.3	0.0	0.0	0.11	0.00	0.00	4	0	0	2	0	0
NPENTANE	1.2	0.2	0.6	0.44	0.70	0.88	15	3	8	10	2	5
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120812
DATE RUN: 02 23 79 AIR CONDITIONER USED
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738M156902 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.7	0.0	0.1	0.26	0.00	0.15	9	0	1	5	0	1
CISPENT-2	0.3	0.0	0.0	0.11	0.00	0.00	4	0	0	2	0	0
2MBUT-2	1.5	0.0	0.3	0.55	0.00	0.44	19	0	4	12	0	2
22MBUTANE	0.2	0.3	0.1	0.07	1.05	0.15	3	5	1	2	3	1
CYPENTENE	0.2	0.0	0.0	0.07	0.00	0.00	2	0	0	2	0	0
3MPENTENE	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.1	0.0	0.1	0.04	0.00	0.15	1	0	1	1	0	1
23MBUTANE	1.5	0.1	0.5	0.55	0.35	0.74	19	2	7	12	1	4
2MPENTANE	3.1	0.2	1.0	1.14	0.70	1.47	40	3	13	25	2	8
3MPENTANE	2.4	0.2	0.8	0.89	0.70	1.18	31	3	11	19	2	7
HEXENE-1	0.7	0.0	0.1	0.26	0.00	0.15	9	0	1	5	0	1
N HEXANE	1.5	0.1	0.5	0.55	0.35	0.74	19	2	7	12	1	4
TC6=3,=2	1.4	0.0	0.2	0.52	0.00	0.29	17	0	3	11	0	2
CC6=3	0.3	0.0	0.1	0.11	0.00	0.15	4	0	1	2	0	1
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	2.2	0.1	0.5	0.81	0.35	0.74	27	2	7	17	1	4
24MPENTANE	4.0	0.3	1.1	1.48	1.05	1.62	51	5	15	32	3	9
BENZENE	10.0	0.6	2.5	3.69	2.10	3.69	116	9	30	72	5	19
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	8.8	0.5	2.2	3.25	1.75	3.24	112	8	29	70	5	18
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.9	0.2	0.7	1.07	0.70	1.03	37	3	9	23	2	6
224MPENTAN	18.2	1.4	5.0	6.71	4.90	7.37	231	22	67	143	14	41
NHEPTANE	2.7	0.1	0.6	1.00	0.35	0.88	34	2	8	21	1	5
MCYHEXANE	0.7	0.0	0.2	0.26	0.00	0.29	9	0	3	5	0	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	2.3	0.2	0.9	0.85	0.70	1.33	29	3	12	18	2	7
234MC5	4.1	0.2	1.0	1.51	0.70	1.47	52	3	13	32	2	8
TOLUENE	18.6	0.9	2.9	6.86	3.15	4.28	218	13	36	135	8	22
23MC6+4MC7	2.3	0.2	0.5	0.85	0.70	0.74	29	3	7	18	2	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120812
DATE RUN: 02 23 79 AIR CONDITIONER USED
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: SUNNER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
34MHEXANE	2.6	0.1	0.6		0.96	0.35	0.88		33	2	8		20	1	5	
3MHEPTANE	2.3	0.1	0.5		0.85	0.35	0.74		29	2	7		18	1	4	
255MC6	2.5	0.2	0.6		0.92	0.70	0.88		32	3	8		20	2	5	
N OCTANE	1.4	0.1	0.3		0.52	0.35	0.44		18	2	4		11	1	2	
223MC6	0.3	0.0	0.1		0.11	0.00	0.15		4	0	1		2	0	1	
ETCYHEXANE	0.6	0.0	0.2		0.22	0.00	0.29		7	0	3		5	0	2	
ET BENZENE	2.8	0.2	0.3		1.03	0.70	0.44		33	3	4		21	2	2	
M+PXYLENE	10.6	1.3	1.2		3.91	4.55	1.77		125	19	15		78	12	9	
2+4MC8	1.5	0.0	0.3		0.55	0.00	0.44		19	0	4		12	0	2	
O XYLENE	4.5	0.5	0.5		1.66	1.75	0.74		53	7	6		33	5	4	
N NONANE	1.2	0.2	0.3		0.44	0.70	0.44		15	3	4		9	2	2	
IPRBENZENE	1.0	0.1	0.2		0.37	0.35	0.29		12	1	2		7	1	2	
NPRBENZENE	0.6	0.1	0.0		0.22	0.35	0.00		7	1	0		4	1	0	
1M3ETBENZ	3.5	0.7	0.3		1.29	2.45	0.44		42	10	4		26	6	2	
135MEBENZ	1.4	0.4	0.1		0.52	1.40	0.15		17	6	1		10	4	1	
1M2ETBENZ	1.3	0.2	0.3		0.48	0.70	0.44		15	3	4		10	2	2	
124MBENZ	4.2	1.3	0.3		1.55	4.55	0.44		50	19	4		31	12	2	
SBUBENZENE	0.5	0.1	0.1		0.18	0.35	0.15		6	1	1		4	1	1	
N DECANE	0.3	0.0	0.0		0.11	0.00	0.00		4	0	0		2	0	0	
123MBENZ	1.0	0.3	0.1		0.37	1.05	0.15		12	4	1		7	3	1	
INDANE	0.6	0.2	0.0		0.22	0.70	0.00		7	3	0		4	2	0	
13EBENZENE	0.1	0.1	0.0		0.04	0.35	0.00		1	1	0		1	1	0	
NBUBENZENE	0.3	0.0	0.0		0.11	0.00	0.00		4	0	0		2	0	0	
1M3PRBENZ	0.5	0.1	0.0		0.18	0.35	0.00		6	1	0		4	1	0	
UNKNOWNS	16.0	2.5	1.6		5.90	8.74	2.36		191	37	20		119	23	12	

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120902
DATE RUN: 02 12 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K473RH156902 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	212.0	24.3	91.7
GC PPMC	195.0	21.3	84.6

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	27.4	12.0	23.1	14.05	56.34	27.31	396	241	326	246	150	203
SATURATES	67.3	7.9	38.2	34.51	37.09	45.15	872	142	483	542	88	300
OLEFINS	38.2	0.6	11.5	19.59	2.82	13.59	483	11	142	300	7	88
ACETYLENE	17.5	0.0	0.8	8.97	0.00	0.95	205	0	9	128	0	6
NAPTHENES	3.6	0.1	1.4	1.85	0.47	1.65	46	2	17	28	1	11
AROMATICS	31.3	0.6	7.6	16.05	2.82	8.98	372	10	88	231	6	55
BENZENE	4.6	0.3	2.6	2.36	1.41	3.07	54	5	30	34	3	19
TOLUENE	9.0	0.3	2.4	4.62	1.41	2.84	107	5	28	66	3	17
C8+AROM	17.7	0.0	2.6	9.08	0.00	3.07	214	0	31	133	0	19
UNKNOWN	9.7	0.1	2.0	0.00	0.00	0.00	117	2	24	73	1	15
INDIVIDUAL COMPONENTS												
METHANE	27.4	12.0	23.1	14.05	56.34	27.31	396	241	326	246	150	203
ETHYLENE	18.6	0.6	7.2	9.54	2.82	8.51	235	11	89	146	7	55
ETHANE	3.1	1.5	2.9	1.59	7.04	3.43	42	28	38	26	18	24
ACETYLENE	17.5	0.0	0.8	8.97	0.00	0.95	205	0	9	128	0	6
C3 + C3=	8.1	0.0	1.5	4.15	0.00	1.77	102	0	19	64	0	12
C=C=C	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.8	0.2	0.9	0.41	0.94	1.06	10	4	12	7	2	7
B1 + IB	4.1	0.0	0.0	2.10	0.00	0.00	52	0	0	32	0	0
NC4 +B=1=3	6.6	1.3	6.1	3.38	6.10	7.21	86	24	78	54	15	48
TBUTENE-2	1.1	0.0	0.4	0.56	0.00	0.47	14	0	5	9	0	3
22MPROPANE	0.9	0.0	0.0	0.46	0.00	0.00	12	0	0	7	0	0
CBUTENE-2	0.0	0.0	0.5	0.00	0.00	0.59	0	0	6	0	0	4
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.3	0.0	0.1	0.15	0.00	0.12	4	0	1	2	0	1
ISOPENTANE	6.5	1.2	5.5	3.33	5.63	6.58	85	22	70	53	13	43
PENTENE-1	0.2	0.0	0.1	0.10	0.00	0.12	3	0	1	2	0	1
2MBUT-1	0.5	0.0	0.0	0.26	0.00	0.00	6	0	0	4	0	0
NPENTANE	1.2	0.2	1.0	0.62	0.94	1.18	16	4	13	10	2	8
2MB=1=3	0.2	0.0	0.0	0.10	0.00	0.00	2	0	0	2	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120902
DATE RUN: 02 12 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K473BH156902 DRIVER: WAND FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	0.8	0.0	0.2	0.41	0.00	0.24	10	0	2	6	0	2
CISPENT-2	0.3	0.0	0.1	0.15	0.00	0.12	4	0	1	2	0	1
2MBUT-2	1.6	0.0	0.6	0.82	0.00	0.71	20	0	7	13	0	5
22MBUTANE	0.2	0.1	0.8	0.10	0.47	0.95	3	2	10	2	1	6
CYPENTENE	0.2	0.0	0.1	0.10	0.00	0.12	2	0	1	2	0	1
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.3	0.0	0.1	0.15	0.00	0.12	4	0	1	2	0	1
23MBUTANE	1.6	0.2	0.8	0.82	0.94	0.95	21	4	10	13	2	6
2MPENTANE	3.8	0.3	1.7	1.95	1.41	2.01	49	5	21	31	3	13
3MPENTANE	2.0	0.2	1.2	1.03	0.94	1.42	26	4	15	16	2	9
HEXENE-1	0.5	0.0	0.2	0.26	0.00	0.24	6	0	2	4	0	2
N HEXANE	0.8	0.0	0.4	0.41	0.00	0.47	10	0	5	6	0	3
TC6=3,=2	1.3	0.0	0.4	0.67	0.00	0.47	16	0	5	10	0	3
CC6=3	0.3	0.0	0.1	0.15	0.00	0.12	4	0	1	2	0	1
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	1.7	0.1	0.8	0.87	0.47	0.95	22	2	10	13	1	6
24MPENTANE	3.0	0.2	1.4	1.54	0.94	1.65	39	4	18	24	2	11
BENZENE	4.6	0.3	2.6	2.36	1.41	3.07	54	5	30	34	3	19
CYHEXANE	0.5	0.0	0.0	0.26	0.00	0.00	6	0	0	4	0	0
2MC6+23MC5	6.3	0.4	2.9	3.23	1.88	3.43	81	7	37	51	4	23
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.6	0.1	0.7	0.82	0.47	0.83	21	2	9	13	1	5
224MPENTAN	12.2	1.2	5.6	6.26	5.63	6.62	157	21	70	98	13	44
MHEPTANE	1.3	0.0	0.5	0.67	0.00	0.59	17	0	6	10	0	4
MCYHEXANE	0.7	0.0	0.3	0.36	0.00	0.35	9	0	4	6	0	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	2.7	0.2	1.1	1.38	0.94	1.30	35	4	14	22	2	9
234MC5	3.1	0.2	1.2	1.59	0.94	1.42	40	4	15	25	2	9
TOLUENE	9.0	0.3	2.4	4.62	1.41	2.84	107	5	28	66	3	17
23MC6+4MC7	1.7	0.1	0.7	0.87	0.47	0.83	22	2	9	14	1	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120902
DATE RUN: 02 12 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.5	0.1	0.6	0.77	0.47	0.71	19	2	8	12	1	5
3MHEPTANE	1.3	0.1	0.5	0.67	0.47	0.59	17	2	6	10	1	4
255MC6	2.1	0.1	0.8	1.08	0.47	0.95	27	2	10	17	1	6
N OCTANE	0.7	0.0	0.2	0.36	0.00	0.24	9	0	3	6	0	2
223MC6	0.2	0.0	0.1	0.10	0.00	0.12	3	0	1	2	0	1
ETCYHEXANE	0.4	0.0	0.2	0.21	0.00	0.24	5	0	2	3	0	2
ET BENZENE	1.5	0.0	0.2	0.77	0.00	0.24	18	0	2	11	0	1
M+PXYLENE	5.7	0.0	0.9	2.92	0.00	1.06	68	0	11	42	0	7
2+4MC8	1.0	0.0	0.4	0.51	0.00	0.47	13	0	5	8	0	3
O XYLENE	2.4	0.0	0.4	1.23	0.00	0.47	29	0	5	18	0	3
N NONANE	1.1	0.0	0.2	0.56	0.00	0.24	14	0	3	9	0	2
IPRBENZENE	0.6	0.0	0.1	0.31	0.00	0.12	7	0	1	4	0	1
NPRBENZENE	0.3	0.0	0.2	0.15	0.00	0.24	4	0	2	2	0	1
1M3ETBENZ	1.9	0.0	0.5	0.97	0.00	0.59	23	0	6	14	0	4
135MEBENZ	0.8	0.0	0.0	0.41	0.00	0.00	10	0	0	6	0	0
1M2ETBENZ	1.1	0.0	0.0	0.56	0.00	0.00	13	0	0	8	0	0
124MBENZ	2.3	0.0	0.2	1.18	0.00	0.24	28	0	2	17	0	1
SBUBENZENE	0.2	0.0	0.1	0.10	0.00	0.12	2	0	1	2	0	1
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.5	0.0	0.0	0.26	0.00	0.00	6	0	0	4	0	0
INDANE	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.2	0.0	0.0	0.10	0.00	0.00	2	0	0	2	0	0
UNKNOWNS	9.7	0.1	2.0	4.97	0.47	2.36	117	2	24	73	1	15

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120903
DATE RUN: 02 22 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	238.4	37.6	104.9
GC PPMC	170.8	29.8	98.6

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	16.2	11.2	17.0	9.48	37.58	17.24	306	276	241	190	172	150
SATURATES	64.3	13.9	50.2	37.65	46.64	50.91	1088	307	638	676	191	396
OLEFINS	26.4	2.2	12.7	15.46	7.38	12.88	436	47	158	271	30	98
ACETYLENE	11.0	0.0	0.2	6.44	0.00	0.20	169	0	2	105	0	1
NAPTHENES	2.8	0.3	1.7	1.64	1.01	1.72	46	6	21	29	4	13
AROMATICS	40.1	1.5	13.4	23.48	5.03	13.59	622	30	156	387	19	97
BENZENE	5.5	0.6	3.6	3.22	2.01	3.65	84	12	41	52	7	26
TOLUENE	12.8	0.6	4.3	7.49	2.01	4.36	199	12	50	123	8	31
C8+AROM	21.8	0.3	5.5	12.76	1.01	5.58	344	6	65	214	4	40
UNKNOWN	10.0	0.7	3.4	0.00	0.00	0.00	158	14	40	98	9	25
INDIVIDUAL COMPONENTS												
METHANE	16.2	11.2	17.0	9.48	37.58	17.24	306	276	241	190	172	150
ETHYLENE	12.4	1.1	7.2	7.26	3.69	7.30	205	24	89	127	15	56
ETHANE	2.0	1.4	2.2	1.17	4.70	2.23	35	32	29	22	20	18
ACETYLENE	11.0	0.0	0.2	6.44	0.00	0.20	169	0	2	105	0	1
C3 + C3=	6.4	1.1	2.6	3.75	3.69	2.64	106	24	32	66	15	20
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.5	0.3	0.9	0.29	1.01	0.91	9	7	12	5	4	7
B1 + 1B	2.3	0.0	0.0	1.35	0.00	0.00	38	0	0	24	0	0
NC4 +B=1=3	5.7	1.8	6.9	3.34	6.04	7.00	98	40	89	61	25	55
TBUTENE-2	0.6	0.0	0.4	0.35	0.00	0.41	10	0	5	6	0	3
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.5	0.0	0.5	0.29	0.00	0.51	8	0	6	5	0	4
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.1	0.12	0.00	0.10	3	0	1	2	0	1
ISOPENTANE	4.7	1.6	5.5	2.75	5.37	5.58	80	36	70	50	22	44
PENTENE-1	0.1	0.0	0.1	0.06	0.00	0.10	2	0	1	1	0	1
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	1.2	0.2	1.0	0.70	0.67	1.01	20	4	13	13	3	8
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120903
DATE RUN: 02 22 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.5	0.0	0.2	0.29	0.00	0.20	8	0	2	5	0	2
CISPENT-2	0.2	0.0	0.1	0.12	0.00	0.10	3	0	1	2	0	1
2MBUT-2	1.0	0.0	0.5	0.59	0.00	0.51	17	0	6	10	0	4
22MBUTANE	1.1	0.1	1.4	0.64	0.34	1.42	19	2	18	12	1	11
CYPENTENE	0.3	0.0	0.2	0.18	0.00	0.20	5	0	2	3	0	1
3MPENTENE	0.1	0.0	0.0	0.06	0.00	0.00	2	0	0	1	0	0
CYPENTANE	0.2	0.0	0.2	0.12	0.00	0.20	3	0	2	2	0	2
23MBUTANE	1.2	0.3	1.1	0.70	1.01	1.12	20	7	14	13	4	9
2MPENTANE	2.6	0.5	2.2	1.52	1.68	2.23	44	11	28	27	7	17
3MPENTANE	1.9	0.6	1.5	1.11	2.01	1.52	32	13	19	20	8	12
HEXENE-1	0.6	0.0	0.3	0.35	0.00	0.30	10	0	4	6	0	2
N HEXANE	1.2	0.3	0.9	0.70	1.01	0.91	20	7	11	13	4	7
TC6=3=2	1.0	0.0	0.4	0.59	0.00	0.41	17	0	5	10	0	3
CC6=3	0.2	0.0	0.1	0.12	0.00	0.10	3	0	1	2	0	1
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	1.5	0.2	0.9	0.88	0.67	0.91	25	4	11	15	3	7
24MPENTANE	2.8	0.5	2.0	1.64	1.68	2.03	47	11	25	29	7	16
BENZENE	5.5	0.6	3.6	3.22	2.01	3.65	84	12	41	52	7	26
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	6.1	0.9	3.9	3.57	3.02	3.96	103	20	49	64	12	31
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.0	0.3	1.3	1.17	1.01	1.32	34	7	16	21	4	10
224MPENTAN	13.0	2.6	8.6	7.61	8.72	8.72	219	57	109	136	36	68
NHEPTANE	1.9	0.2	0.9	1.11	0.67	0.91	32	4	11	20	3	7
MCYHEXANE	0.6	0.0	0.3	0.35	0.00	0.30	10	0	4	6	0	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	2.8	0.4	1.6	1.64	1.34	1.62	47	9	20	29	5	13
234MC5	3.0	0.4	1.8	1.76	1.34	1.83	50	9	23	31	5	14
TOLUENE	12.8	0.6	4.3	7.49	2.01	4.36	199	12	50	123	8	31
23MC6+4MC7	1.7	0.3	1.0	1.00	1.01	1.01	29	7	13	18	4	8

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120903
DATE RUN: 02 22 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.9	0.3	1.1	1.11	1.01	1.12	32	7	14	20	4	9
3MHEPTANE	1.7	0.3	1.0	1.00	1.01	1.01	29	7	13	18	4	8
255MC6	1.8	0.4	1.2	1.05	1.34	1.22	30	9	15	19	5	9
N OCTANE	1.0	0.1	0.6	0.59	0.34	0.61	17	2	8	10	1	5
223MC6	0.2	0.0	0.2	0.12	0.00	0.20	3	0	3	2	0	2
ETCYHEXANE	0.5	0.1	0.3	0.29	0.34	0.30	8	2	4	5	1	2
ET BENZENE	2.0	0.1	0.4	1.17	0.34	0.41	31	2	5	19	1	3
M+PXYLENE	7.5	0.1	1.8	4.39	0.34	1.83	117	2	21	73	1	13
2+4MC8	1.1	0.1	0.7	0.64	0.34	0.71	18	2	9	11	1	5
O XYLENE	3.0	0.1	0.8	1.76	0.34	0.81	47	2	9	29	1	6
N NONANE	0.9	0.0	0.6	0.53	0.00	0.61	15	0	8	9	0	5
IPRBENZENE	0.6	0.0	0.4	0.35	0.00	0.41	9	0	5	6	0	3
NPRBENZENE	0.4	0.0	0.2	0.23	0.00	0.20	6	0	2	4	0	1
1M3ETBENZ	2.3	0.0	0.3	1.35	0.00	0.30	36	0	4	22	0	2
135MEBENZ	0.9	0.0	0.2	0.53	0.00	0.20	14	0	2	9	0	1
1M2ETBENZ	0.9	0.0	0.7	0.53	0.00	0.71	14	0	8	9	0	5
124MBENZ	2.7	0.0	0.6	1.58	0.00	0.61	42	0	7	26	0	4
SBUBENZENE	0.2	0.0	0.1	0.12	0.00	0.10	3	0	1	2	0	1
N DECANE	0.3	0.0	0.1	0.18	0.00	0.10	5	0	1	3	0	1
123MBENZ	0.7	0.0	0.0	0.41	0.00	0.00	11	0	0	7	0	0
INDANE	0.1	0.0	0.0	0.06	0.00	0.00	2	0	0	1	0	0
13DRENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.2	0.0	0.0	0.12	0.00	0.00	3	0	0	2	0	0
1M3PRBENZ	0.3	0.0	0.0	0.18	0.00	0.00	5	0	0	3	0	0
UNKNOWNS	10.0	0.7	3.4	5.85	2.35	3.45	158	14	40	98	9	25

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120911
DATE RUN: 02 13 79 AIR CONDITIONER USED
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	201.3	25.3	97.2
GC PPMC	187.5	23.6	89.8

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	25.0	13.9	26.5	13.33	58.90	29.51	364	275	385	226	171	239
SATURATES	66.4	7.1	37.2	35.41	30.08	41.43	866	126	484	538	78	301
OLEFINS	36.1	1.1	11.2	19.25	4.66	12.47	460	19	142	286	12	88
ACETYLENE	11.9	0.0	0.2	6.35	0.00	0.22	141	0	2	87	0	1
NAPTHENES	3.7	0.1	1.4	1.97	0.42	1.56	47	2	18	29	1	11
AROMATICS	32.0	0.9	9.5	17.07	3.81	10.58	383	15	113	238	9	70
BENZENE	5.1	0.6	3.9	2.72	2.54	4.34	60	10	46	37	6	29
TOLUENE	9.6	0.1	2.7	5.12	0.42	3.01	115	2	32	71	1	20
C8+AROM	17.3	0.2	2.9	9.23	0.85	3.23	210	3	35	131	2	22
UNKNOWN	12.4	0.5	3.8	0.00	0.00	0.00	151	8	46	94	5	29
INDIVIDUAL COMPONENTS												
METHANE	25.0	13.9	26.5	13.33	58.90	29.51	364	275	385	226	171	239
ETHYLENE	17.6	0.9	7.2	9.39	3.81	8.02	224	15	92	139	10	57
ETHANE	3.0	1.3	2.8	1.60	5.51	3.12	41	24	38	25	15	24
ACETYLENE	11.9	0.0	0.2	6.35	0.00	0.22	141	0	2	87	0	1
C3 + C3=	7.9	0.2	1.6	4.21	0.85	1.78	101	3	20	63	2	13
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.7	0.2	0.8	0.37	0.85	0.89	9	4	11	6	2	7
B1 + IB	3.3	0.0	0.0	1.76	0.00	0.00	42	0	0	26	0	0
NC4 +B=1=3	6.3	1.0	5.6	3.36	4.24	6.24	83	18	74	52	11	46
TBUTENE-2	1.0	0.0	0.4	0.53	0.00	0.45	13	0	5	8	0	3
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.8	0.0	0.5	0.43	0.00	0.56	10	0	6	6	0	4
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.1	0.11	0.00	0.11	3	0	1	2	0	1
ISOPENTANE	6.0	0.9	5.1	3.20	3.81	5.68	79	16	67	49	10	41
PENTENE-1	0.2	0.0	0.0	0.11	0.00	0.00	3	0	0	2	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	1.5	0.1	0.9	0.80	0.42	1.00	20	2	12	12	1	7
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120911
DATE RUN: 02 13 79 AIR CONDITIONER USED
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	0.9	0.0	0.2	0.48	0.00	0.22	11	0	3	7	0	2
CISPENT-2	0.3	0.0	0.0	0.16	0.00	0.00	4	0	0	2	0	0
2MBUT-2	1.6	0.0	0.6	0.85	0.00	0.67	20	0	8	13	0	5
22MBUTANE	0.1	0.1	0.5	0.05	0.42	0.56	1	2	7	1	1	4
CYPENTENE	0.2	0.0	0.0	0.11	0.00	0.00	2	0	0	2	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.3	0.0	0.1	0.16	0.00	0.11	4	0	1	2	0	1
23MBUTANE	1.3	0.2	0.8	0.69	0.85	0.89	17	4	10	11	2	6
2MPENTANE	2.8	0.3	1.7	1.49	1.27	1.89	37	5	22	23	3	14
3MPENTANE	2.1	0.2	1.1	1.12	0.85	1.22	27	4	14	17	2	9
HEXENE-1	0.5	0.0	0.1	0.27	0.00	0.11	6	0	1	4	0	1
N HEXANE	0.8	0.0	0.4	0.43	0.00	0.45	10	0	5	6	0	3
TC6=3,=2	1.3	0.0	0.4	0.69	0.00	0.45	17	0	5	10	0	3
CC6=3	0.3	0.0	0.1	0.16	0.00	0.11	4	0	1	2	0	1
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	1.7	0.1	0.8	0.91	0.42	0.89	22	2	10	13	1	6
24MPENTANE	3.0	0.2	1.5	1.60	0.85	1.67	39	4	19	24	2	12
BENZENE	5.1	0.6	3.9	2.72	2.54	4.34	60	10	46	37	6	29
CYHEXANE	0.5	0.0	0.0	0.27	0.00	0.00	6	0	0	4	0	0
2MC6+23MC5	6.5	0.4	3.0	3.47	1.69	3.34	84	7	39	53	4	24
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.6	0.1	0.8	0.85	0.42	0.89	21	2	10	13	1	6
224MPENTAN	12.6	1.1	5.6	6.72	4.66	6.24	163	19	72	102	12	45
NHEPTANE	1.4	0.1	0.5	0.75	0.42	0.56	18	2	6	11	1	4
MCYHEXANE	0.8	0.0	0.3	0.43	0.00	0.33	10	0	4	6	0	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	2.9	0.2	1.1	1.55	0.85	1.22	38	4	14	23	2	9
234MC5	3.3	0.2	1.3	1.76	0.85	1.45	43	4	17	27	2	10
TOLUENE	9.6	0.1	2.7	5.12	0.42	3.01	115	2	32	71	1	20
23MC6+4MC7	1.8	0.1	0.7	0.96	0.42	0.78	23	2	9	15	1	6

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120911
DATE RUN: 02 13 79 AIR CONDITIONER USED
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.6	0.1	0.6	0.85	0.42	0.67	21	2	8	13	1	5
3MHEPTANE	1.4	0.1	0.5	0.75	0.42	0.56	18	2	6	11	1	4
255MC6	2.3	0.1	0.8	1.23	0.42	0.89	30	2	10	18	1	6
N OCTANE	0.8	0.1	0.2	0.43	0.42	0.22	10	2	3	6	1	2
223MC6	0.4	0.0	0.1	0.21	0.00	0.11	5	0	1	3	0	1
ETCYHEXANE	0.4	0.0	0.2	0.21	0.00	0.22	5	0	3	3	0	2
ET BENZENE	1.6	0.0	0.2	0.85	0.00	0.22	19	0	2	12	0	1
M+PXYLENE	5.9	0.1	1.0	3.15	0.42	1.11	71	2	12	44	1	7
2+4MC8	1.0	0.0	0.4	0.53	0.00	0.45	13	0	5	8	0	3
O XYLENE	2.4	0.1	0.3	1.28	0.42	0.33	29	2	4	18	1	2
N NONANE	1.2	0.0	0.4	0.64	0.00	0.45	16	0	5	10	0	3
IPRBENZENE	0.6	0.0	0.2	0.32	0.00	0.22	7	0	2	5	0	2
NPRBENZENE	0.3	0.0	0.0	0.16	0.00	0.00	4	0	0	2	0	0
1M3ETBENZ	1.8	0.0	0.1	0.96	0.00	0.11	22	0	1	14	0	1
135MEBENZ	0.7	0.0	0.1	0.37	0.00	0.11	8	0	1	5	0	1
1M2ETBENZ	1.1	0.0	0.1	0.59	0.00	0.11	13	0	1	8	0	1
124MBENZ	2.1	0.0	0.6	1.12	0.00	0.67	25	0	7	16	0	5
SBUBENZENE	0.3	0.0	0.2	0.16	0.00	0.22	4	0	2	2	0	2
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.5	0.0	0.1	0.27	0.00	0.11	6	0	1	4	0	1
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1M3PRBENZ	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
UNKNOWNS	12.4	0.5	3.8	6.61	2.12	4.23	151	8	46	94	5	29

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120912
DATE RUN: 02 20 79 AIR CONDITIONER USED
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	270.7	25.9	102.9
GC PPMC	238.3	15.7	94.9

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	29.2	7.9	25.9	12.25	50.32	27.29	452	223	373	281	139	232
SATURATES	76.6	5.7	39.2	32.14	36.31	41.31	1061	144	505	660	90	314
OLEFINS	37.4	0.7	10.6	15.69	4.46	11.17	506	17	133	315	11	83
ACETYLENE	17.2	0.0	1.3	7.22	0.00	1.37	216	0	15	134	0	9
NAPTHENES	3.5	0.1	1.6	1.47	0.64	1.69	47	2	20	29	2	13
AROMATICS	54.5	0.9	13.4	22.87	5.73	14.12	693	21	158	430	13	98
BENZENE	7.3	0.4	4.5	3.06	2.55	4.74	92	9	53	57	6	33
TOLUENE	14.6	0.3	3.8	6.13	1.91	4.00	186	7	45	115	4	28
C8+AROM	32.6	0.2	5.1	13.68	1.27	5.37	421	5	61	262	3	38
UNKNOWN	19.9	0.4	2.9	0.00	0.00	0.00	258	9	35	160	6	22
INDIVIDUAL COMPONENTS												
METHANE	29.2	7.9	25.9	12.25	50.32	27.29	452	223	373	281	139	232
ETHYLENE	19.3	0.5	7.1	8.10	3.18	7.48	261	12	89	162	8	56
ETHANE	2.8	0.7	2.3	1.17	4.46	2.42	41	19	31	25	12	19
ACETYLENE	17.2	0.0	1.3	7.22	0.00	1.37	216	0	15	134	0	9
C3 + C3=	7.8	0.0	1.5	3.27	0.00	1.58	106	0	19	66	0	12
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.5	0.1	0.6	0.21	0.64	0.63	7	3	8	4	2	5
B1 + IB	3.0	0.0	0.0	1.26	0.00	0.00	41	0	0	25	0	0
NC4 +B=1=3	5.7	0.5	4.9	2.39	3.18	5.16	80	13	64	50	8	40
TBUTENE-2	0.7	0.0	0.2	0.29	0.00	0.21	9	0	3	6	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.6	0.0	0.3	0.25	0.00	0.32	8	0	4	5	0	2
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.0	0.08	0.00	0.00	3	0	0	2	0	0
ISOPENTANE	5.1	0.4	4.1	2.14	2.55	4.32	71	10	53	44	6	33
PENTENE-1	0.2	0.0	0.0	0.08	0.00	0.00	3	0	0	2	0	0
2MBUT-1	0.5	0.0	0.0	0.21	0.00	0.00	7	0	0	4	0	0
NPENTANE	1.4	0.2	0.8	0.59	1.27	0.84	19	5	10	12	3	6
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120912
DATE RUN: 02 20 79 AIR CONDITIONER USED
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT-2	0.5	0.0	0.1	0.21	0.00	0.11	7	0	1	4	0	1
CISPENT-2	0.2	0.0	0.0	0.08	0.00	0.00	3	0	0	2	0	0
2MBUT-2	1.2	0.0	0.4	0.50	0.00	0.42	16	0	5	10	0	3
22MBUTANE	0.7	0.4	1.2	0.29	2.55	1.26	10	10	15	6	6	10
CYPENTENE	0.2	0.0	0.2	0.08	0.00	0.21	3	0	2	2	0	2
3MPENTENE	0.0	0.1	0.0	0.00	0.64	0.00	0	2	0	0	2	0
CYPENTANE	0.2	0.0	0.2	0.08	0.00	0.21	3	0	3	2	0	2
23MBUTANE	1.3	0.1	0.9	0.55	0.64	0.95	18	3	12	11	2	7
2MPENTANE	2.8	0.6	1.8	1.17	3.82	1.90	39	15	23	24	9	14
3MPENTANE	5.1	0.5	1.4	2.14	3.18	1.48	71	13	18	44	8	11
HEXENE-1	1.2	0.1	0.3	0.50	0.64	0.32	16	2	4	10	2	2
N HEXANE	1.4	0.1	0.7	0.59	0.64	0.74	19	3	9	12	2	6
TC6=3,=2	1.4	0.0	0.4	0.59	0.00	0.42	19	0	5	12	0	3
CC6=3	0.4	0.0	0.1	0.17	0.00	0.11	5	0	1	3	0	1
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	2.0	0.1	0.8	0.84	0.64	0.84	27	2	10	17	2	6
24MPENTANE	3.4	0.2	1.6	1.43	1.27	1.69	47	5	21	29	3	13
BENZENE	7.3	0.4	4.5	3.06	2.55	4.74	92	9	53	57	6	33
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	7.2	0.3	3.2	3.02	1.91	3.37	99	8	41	62	5	26
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.2	0.1	1.0	0.92	0.64	1.05	30	3	13	19	2	8
224MPENTAN	14.8	0.8	6.6	6.21	5.10	6.95	204	20	85	127	12	53
NHEPTANE	1.9	0.1	0.7	0.80	0.64	0.74	26	3	9	16	2	6
MCYHEXANE	0.7	0.0	0.3	0.29	0.00	0.32	9	0	4	6	0	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	3.2	0.1	1.3	1.34	0.64	1.37	44	3	17	27	2	10
234MC5	3.6	0.1	1.4	1.51	0.64	1.48	50	3	18	31	2	11
TOLUENE	14.6	0.3	3.8	6.13	1.91	4.00	186	7	45	115	4	28
23MC6+4MC7	2.1	0.1	0.8	0.88	0.64	0.84	29	3	10	18	2	6

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 120912
DATE RUN: 02 20 79 AIR CONDITIONER USED
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	2.2	0.1	0.8	0.92	0.64	0.84	30	3	10	19	2	6
3MHEPTANE	2.0	0.1	0.7	0.84	0.64	0.74	28	3	9	17	2	6
255MC6	2.4	0.1	0.8	1.01	0.64	0.84	33	3	10	21	2	6
N OCTANE	1.2	0.0	0.3	0.50	0.00	0.32	17	0	4	10	0	2
223MC6	0.4	0.0	0.1	0.17	0.00	0.11	5	0	1	3	0	1
ETCYHEXANE	0.6	0.0	0.3	0.25	0.00	0.32	8	0	4	5	0	2
ET BENZENE	2.6	0.0	0.5	1.09	0.00	0.53	33	0	6	21	0	4
M+PXYLENE	9.9	0.1	1.7	4.15	0.64	1.79	127	2	20	79	1	13
244MC8	1.5	0.0	0.6	0.63	0.00	0.63	21	0	8	13	0	5
O XYLENE	3.9	0.1	0.7	1.64	0.64	0.74	50	2	8	31	1	5
N NONANE	1.3	0.0	0.5	0.55	0.00	0.53	18	0	6	11	0	4
IPRBENZENE	0.9	0.0	0.3	0.38	0.00	0.32	12	0	4	7	0	2
NPRBENZENE	0.6	0.0	0.1	0.25	0.00	0.11	8	0	1	5	0	1
1M3ETBENZ	3.8	0.0	0.2	1.59	0.00	0.21	49	0	2	30	0	1
135MEBENZ	1.5	0.0	0.2	0.63	0.00	0.21	19	0	2	12	0	1
1M2ETBENZ	1.5	0.0	0.7	0.63	0.00	0.74	19	0	8	12	0	5
124MBENZ	4.7	0.0	0.5	1.97	0.00	0.53	61	0	6	38	0	4
SBUBENZENE	0.5	0.0	0.1	0.21	0.00	0.11	6	0	1	4	0	1
N DECANE	0.4	0.0	0.1	0.17	0.00	0.11	5	0	1	3	0	1
123MBENZ	1.2	0.0	0.1	0.50	0.00	0.11	15	0	1	10	0	1
INDANE	0.2	0.0	0.0	0.08	0.00	0.00	3	0	0	2	0	0
13EBENZENE	0.2	0.0	0.0	0.08	0.00	0.00	3	0	0	2	0	0
NBUBENZENE	0.4	0.0	0.0	0.17	0.00	0.00	5	0	0	3	0	0
1M3PRBENZ	0.7	0.0	0.0	0.29	0.00	0.00	9	0	0	6	0	0
UNKNOWNS	19.9	0.4	2.9	8.35	2.55	3.06	258	9	35	160	6	22

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 121101
DATE RUN: 02 14 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738M156902 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	167.4	39.6	256.0
GC PPMC	152.5	33.4	249.6

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	17.9	22.0	77.0	11.74	65.87	30.85	265	522	1069	165	324	665
SATURATES	57.2	7.9	95.6	37.51	23.65	38.30	757	188	1189	471	104	739
OLEFINS	33.9	1.8	48.7	22.23	5.39	15.50	438	37	470	272	23	292
ACETYLENE	5.2	0.0	3.6	3.41	0.00	1.44	62	0	41	39	0	25
NAPTHENES	3.3	0.1	3.2	2.16	0.30	1.28	43	2	39	27	1	24
AROMATICS	25.4	1.6	24.3	16.66	4.79	9.74	308	31	277	192	19	172
BENZENE	3.7	1.1	11.1	2.43	3.29	4.45	44	21	125	28	13	78
TOLUENE	7.4	0.2	5.9	4.85	0.60	2.36	90	4	67	56	2	42
C8+AROM	14.3	0.3	7.3	9.38	0.90	2.92	177	6	85	110	4	53
UNKNOWN	9.6	0.0	7.2	0.00	0.00	0.00	119	0	84	74	0	52
INDIVIDUAL COMPONENTS												
METHANE	17.9	22.0	77.0	11.74	65.87	30.85	265	522	1069	165	324	665
ETHYLENE	15.3	1.4	27.1	10.03	4.19	10.86	198	29	329	123	18	205
ETHANE	2.8	1.2	5.4	1.84	3.59	2.16	39	27	70	24	17	44
ACETYLENE	5.2	0.0	3.6	3.41	0.00	1.44	62	0	41	39	0	25
C3 + C3=	7.3	0.3	4.7	4.79	0.90	1.88	94	6	57	59	4	35
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.8	0.2	2.9	0.52	0.60	1.16	11	4	36	7	3	23
B1 + IB	3.2	0.0	0.0	2.10	0.00	0.00	41	0	0	26	0	0
NC4 +B=1=3	6.6	1.5	20.0	4.33	3.89	8.01	88	28	252	55	17	156
TBUTENE-2	1.1	0.0	1.2	0.72	0.00	0.48	14	0	15	9	0	9
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.9	0.0	1.4	0.59	0.00	0.56	12	0	17	7	0	11
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.3	0.0	0.3	0.20	0.00	0.12	4	0	4	2	0	2
ISOPENTANE	6.3	1.2	15.7	4.13	3.59	6.29	84	26	196	52	16	122
PENTENE-1	0.2	0.0	0.0	0.13	0.00	0.00	3	0	0	2	0	0
2MBUT-1	0.4	0.0	0.1	0.26	0.00	0.04	5	0	1	3	0	1
NPENTANE	1.2	0.2	2.5	0.79	0.60	1.00	16	4	31	10	3	19
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 121101
DATE RUN: 02 14 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.9	0.0	0.7	0.59	0.00	0.28	12	0	9	7	0	5
CISPENT-2	0.3	0.0	0.2	0.20	0.00	0.08	4	0	2	2	0	2
2MBUT-2	1.6	0.1	1.6	1.05	0.30	0.64	21	2	19	13	1	12
22MBUTANE	0.3	0.0	0.1	0.20	0.00	0.04	4	0	1	2	0	1
CYPENTENE	0.2	0.0	0.1	0.13	0.00	0.04	3	0	1	2	0	1
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.3	0.0	0.3	0.20	0.00	0.12	4	0	4	2	0	2
23MBUTANE	1.2	0.2	2.1	0.79	0.60	0.84	16	4	26	10	3	16
2MPENTANE	2.6	0.3	4.4	1.70	0.90	1.76	34	6	55	21	4	34
3MPENTANE	1.9	0.2	3.0	1.25	0.60	1.20	25	4	37	16	3	23
HEXENE-1	0.6	0.0	0.3	0.39	0.00	0.12	8	0	4	5	0	2
N HEXANE	0.9	0.1	0.9	0.59	0.30	0.36	12	2	11	7	1	7
TC6=3,=2	1.3	0.0	0.8	0.85	0.00	0.32	17	0	10	10	0	6
CC6=3	0.3	0.0	0.2	0.20	0.00	0.08	4	0	2	2	0	2
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	1.6	0.1	1.9	1.05	0.30	0.76	21	2	23	13	1	14
24MPENTANE	2.6	0.2	3.4	1.70	0.60	1.36	34	4	42	21	3	26
BENZENE	3.7	1.1	11.1	2.43	3.29	4.45	44	21	125	28	13	78
CYHEXANE	0.5	0.0	0.0	0.33	0.00	0.00	6	0	0	4	0	0
2MC6+23MC5	5.2	0.5	6.8	3.41	1.50	2.72	69	11	84	43	7	52
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.3	0.1	1.7	0.85	0.30	0.68	17	2	21	11	1	13
224MPENTAN	9.8	1.0	12.3	6.43	2.99	4.93	129	21	152	80	13	94
MHEPTANE	1.1	0.1	1.1	0.72	0.30	0.44	15	2	14	9	1	8
MCYHEXANE	0.6	0.0	0.7	0.39	0.00	0.28	8	0	9	5	0	5
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	2.1	0.2	2.5	1.38	0.60	1.00	28	4	31	17	3	19
234MC5	2.5	0.2	2.8	1.64	0.60	1.12	33	4	35	20	3	22
TOLUENE	7.4	0.2	5.9	4.85	0.60	2.36	90	4	67	56	2	42
23MC6+4MC7	1.4	0.2	1.4	0.92	0.60	0.56	18	4	17	11	3	11

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 121101
DATE RUN: 02 14 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
34MHEXANE		1.2	0.1	1.3		0.79	0.30	0.52		16	2	16		10	1	10
3MHEPTANE		1.0	0.1	1.1		0.66	0.30	0.44		13	2	14		8	1	8
255MC6		1.7	0.1	1.9		1.11	0.30	0.76		22	2	23		14	1	15
N OCTANE		0.5	0.1	0.5		0.33	0.30	0.20		7	2	6		4	1	4
223MC6		0.3	0.0	0.3		0.20	0.00	0.12		4	0	4		2	0	2
ETCYHEXANE		0.3	0.0	0.3		0.20	0.00	0.12		4	0	4		2	0	2
ET BENZENE		1.3	0.0	0.5		0.85	0.00	0.20		16	0	6		10	0	4
M+PXYLENE		4.8	0.1	2.3		3.15	0.30	0.92		59	2	26		36	1	16
244MC8		0.9	0.1	0.7		0.59	0.30	0.28		12	2	9		7	1	5
O XYLENE		2.0	0.1	1.1		1.31	0.30	0.44		24	2	13		15	1	8
N NONANE		1.0	0.0	0.8		0.66	0.00	0.32		13	0	10		8	0	6
IPRBENZENE		0.5	0.0	0.5		0.33	0.00	0.20		6	0	6		4	0	4
NPRBENZENE		0.2	0.0	0.1		0.13	0.00	0.04		2	0	1		2	0	1
1M3ETBENZ		1.7	0.0	0.2		1.11	0.00	0.08		21	0	2		13	0	1
135MEBENZ		0.6	0.0	0.3		0.39	0.00	0.12		7	0	3		5	0	2
1M2ETBENZ		1.1	0.0	0.2		0.72	0.00	0.08		14	0	2		8	0	1
124MBLNZ		1.7	0.1	1.0		1.11	0.30	0.40		21	2	12		13	1	7
SBUBENZENE		0.4	0.0	0.4		0.26	0.00	0.16		5	0	5		3	0	3
N DECANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
123MBENZ		0.0	0.0	0.7		0.00	0.00	0.28		0	0	8		0	0	5
INDANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
13EBENZENE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
NBUBENZENE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
1M3PRBENZ		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
UNKNOWNS		9.6	0.0	7.2		6.30	0.00	2.88		119	0	84		74	0	52

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 121102
DATE RUN: 02 19 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: SWARTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	393.3	31.4	119.6
GC PPMC	370.8	26.1	105.4

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	41.6	16.7	33.4	11.22	63.99	31.69	603	384	509	375	239	316
SATURATES	134.2	5.8	39.3	36.19	22.22	37.29	1741	119	536	1082	74	333
OLEFINS	60.4	1.3	12.7	16.29	4.98	12.05	765	26	169	476	16	105
ACETYLENE	19.4	0.0	0.8	5.23	0.00	0.76	228	0	10	142	0	6
NAPTHENES	7.3	0.1	1.6	1.97	0.38	1.52	93	2	21	57	1	13
AROMATICS	75.5	2.2	14.1	20.36	8.43	13.38	898	42	177	558	26	110
BENZENE	8.7	1.4	6.1	2.35	5.36	5.79	102	26	75	64	16	47
TOLUENE	19.3	0.4	3.6	5.20	1.53	3.42	230	8	45	143	5	28
C8+AROM	47.5	0.4	4.4	12.81	1.53	4.17	575	8	56	357	5	35
UNKNOWN	32.4	0.0	3.5	0.00	0.00	0.00	393	0	45	244	0	28
INDIVIDUAL COMPONENTS												
METHANE	41.6	16.7	33.4	11.22	63.99	31.69	603	384	509	375	239	316
ETHYLENE	29.3	1.2	8.6	7.90	4.60	8.16	371	24	115	231	15	71
ETHANE	4.4	0.9	2.4	1.19	3.45	2.28	60	19	34	37	12	21
ACETYLENE	19.4	0.0	0.8	5.23	0.00	0.76	228	0	10	142	0	6
C3 + C3=	9.7	0.1	1.8	2.62	0.38	1.71	123	2	24	76	1	15
C=C=C	0.2	0.0	0.0	0.05	0.00	0.00	2	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.4	0.0	0.3	0.11	0.00	0.28	5	0	4	3	0	3
B1 + 1B	5.5	0.0	0.0	1.48	0.00	0.00	70	0	0	43	0	0
NC4 +B=1=3	5.7	0.5	3.6	1.54	1.92	3.42	75	10	50	47	6	31
TBUTENE-2	1.5	0.0	0.3	0.40	0.00	0.28	19	0	4	12	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.2	0.0	0.4	0.32	0.00	0.38	15	0	5	9	0	3
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.4	0.0	0.1	0.11	0.00	0.09	5	0	1	3	0	1
ISOPENTANE	8.9	0.6	4.4	2.40	2.30	4.17	116	12	60	72	8	38
PENTENE-1	0.4	0.0	0.0	0.11	0.00	0.00	5	0	0	3	0	0
2MBUT-1	0.9	0.0	0.0	0.24	0.00	0.00	11	0	0	7	0	0
NPENTANE	1.8	0.1	0.9	0.49	0.38	0.85	23	2	12	15	1	8
2MB=1=3	0.4	0.0	0.0	0.11	0.00	0.00	5	0	0	3	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 121102
DATE RUN: 02 19 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K473BM156902 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.4	0.0	0.2	0.38	0.00	0.19	18	0	3	11	0	2
CISPENT-2	0.6	0.0	0.0	0.16	0.00	0.00	8	0	0	5	0	0
2MBUT-2	2.9	0.0	0.6	0.78	0.00	0.57	37	0	8	23	0	5
22MBUTANE	0.8	0.3	0.4	0.22	1.15	0.38	10	6	5	6	4	3
CYPENTENE	0.4	0.0	0.0	0.11	0.00	0.00	5	0	0	3	0	0
3MPENTENE	0.3	0.0	0.0	0.08	0.00	0.00	4	0	0	2	0	0
CYPENTANE	0.3	0.0	0.1	0.08	0.00	0.09	4	0	1	2	0	1
23MBUTANE	2.9	0.0	0.9	0.78	0.00	0.85	38	0	12	23	0	8
2MPENTANE	6.7	0.3	2.0	1.81	1.15	1.90	87	6	27	54	4	17
3MPENTANE	3.7	0.2	1.4	1.00	0.77	1.33	48	4	19	30	3	12
HEXENE-1	1.0	0.0	0.2	0.27	0.00	0.19	13	0	3	8	0	2
N HEXANE	1.6	0.0	0.5	0.43	0.00	0.47	21	0	7	13	0	4
TC6=3,=2	3.0	0.0	0.4	0.81	0.00	0.38	38	0	5	24	0	3
CC6=3	0.6	0.0	0.1	0.16	0.00	0.09	8	0	1	5	0	1
2MPENTENE 2	0.7	0.0	0.0	0.19	0.00	0.00	9	0	0	6	0	0
MCYP43M2C5	3.1	0.1	0.9	0.84	0.38	0.85	39	2	12	24	1	7
24MPENTANE	6.3	0.2	1.8	1.70	0.77	1.71	81	4	24	51	3	15
BENZENE	8.7	1.4	6.1	2.35	5.36	5.79	102	26	75	64	16	47
CYHEXANE	0.9	0.0	0.0	0.24	0.00	0.00	11	0	0	7	0	0
2MC6+23MC5	14.7	0.5	3.8	3.96	1.92	3.61	190	10	52	118	6	32
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.8	0.1	1.0	1.02	0.38	0.95	49	2	14	31	1	8
224MPENTAN	27.9	1.1	7.2	7.52	4.21	6.83	360	23	98	224	14	61
NHEPTANE	3.7	0.1	0.6	1.00	0.38	0.57	48	2	8	30	1	5
MCYHEXANE	1.8	0.0	0.4	0.49	0.00	0.38	23	0	5	14	0	3
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	6.7	0.2	1.4	1.81	0.77	1.33	86	4	19	54	3	12
234MC5	8.3	0.2	1.6	2.24	0.77	1.52	107	4	22	67	3	13
TOLUENE	19.3	0.4	3.6	5.20	1.53	3.42	230	8	45	143	5	28
23MC6+4MC7	4.0	0.2	0.9	1.08	0.77	0.85	52	4	12	32	3	8

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 121102
DATE RUN: 02 19 79
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738M156902 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	3.7	0.1	0.8	1.00	0.38	0.76	48	2	11	30	1	7
3MHEPTANE	3.7	0.0	0.7	1.00	0.00	0.66	48	0	9	30	0	6
25DMC6	5.8	0.1	1.1	1.56	0.38	1.04	75	2	15	46	1	9
N OCTANE	1.8	0.0	0.3	0.49	0.00	0.28	23	0	4	14	0	3
223MC6	1.0	0.0	0.2	0.27	0.00	0.19	13	0	3	8	0	2
ETCYHEXANE	1.2	0.0	0.2	0.32	0.00	0.19	15	0	3	9	0	2
ET BENZENE	3.7	0.0	0.3	1.00	0.00	0.28	44	0	4	28	0	2
M+PXYLENE	13.8	0.2	1.4	3.72	0.77	1.33	165	4	18	103	2	11
24DMC8	2.5	0.1	0.5	0.67	0.38	0.47	32	2	7	20	1	4
O XYLENE	6.1	0.2	0.6	1.65	0.77	0.57	73	4	8	45	2	5
N NONANE	2.6	0.0	0.6	0.70	0.00	0.57	33	0	8	21	0	5
IPRBENZENE	1.9	0.0	0.3	0.51	0.00	0.28	23	0	4	14	0	2
NPRBENZENE	1.0	0.0	0.0	0.27	0.00	0.00	12	0	0	7	0	0
1M3ETBENZ	5.3	0.0	0.0	1.43	0.00	0.00	64	0	0	40	0	0
135MEBENZ	2.1	0.0	0.3	0.57	0.00	0.28	25	0	4	16	0	2
1M2ETBENZ	3.3	0.0	0.8	0.89	0.00	0.76	40	0	10	25	0	6
124MBENZ	6.0	0.0	0.3	1.62	0.00	0.28	72	0	4	45	0	2
SBUBENZENE	1.0	0.0	0.1	0.27	0.00	0.09	12	0	1	8	0	1
N DECANE	0.8	0.0	0.0	0.22	0.00	0.00	10	0	0	6	0	0
123MBENZ	1.5	0.0	0.3	0.40	0.00	0.28	18	0	4	11	0	2
INDANE	0.4	0.0	0.0	0.11	0.00	0.00	5	0	0	3	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.6	0.0	0.0	0.16	0.00	0.00	7	0	0	5	0	0
1M3PRBENZ	0.8	0.0	0.0	0.22	0.00	0.00	10	0	0	6	0	0
UNKNOWNS	32.4	0.0	3.5	8.74	0.00	3.32	393	0	45	244	0	28

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 121111
DATE RUN: 02 15 79 AIR CONDITIONER USED
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	204.1	35.5	330.4
GC PPMC	192.7	29.2	308.2

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	27.8	19.1	75.0	14.43	65.41	24.34	390	445	1081	243	277	672
SATURATES	59.6	6.0	121.9	30.93	20.55	39.55	749	125	1573	466	78	977
OLEFINS	39.8	1.7	49.6	20.65	5.82	16.09	489	35	625	304	22	388
ACETYLENE	6.4	0.0	5.6	3.32	0.00	1.82	73	0	65	45	0	41
NAPTHENES	3.0	0.2	5.0	1.56	0.68	1.62	37	4	63	23	3	39
AROMATICS	42.5	1.7	38.2	22.06	5.82	12.39	490	33	452	305	20	281
BENZENE	6.9	1.3	14.8	3.58	4.45	4.80	79	25	173	49	15	108
TOLUENE	10.5	0.2	10.0	5.45	0.68	3.24	121	4	118	75	2	74
C8+AROM	25.1	0.2	13.4	13.03	0.68	4.35	294	4	161	183	2	100
UNKNOWN	13.6	0.5	12.9	0.00	0.00	0.00	160	10	156	99	6	97
INDIVIDUAL COMPONENTS												
METHANE	27.8	19.1	75.0	14.43	65.41	24.34	390	445	1081	243	277	672
ETHYLENE	20.1	0.9	32.4	10.43	3.08	10.51	247	18	408	153	11	254
ETHANE	2.9	0.9	4.5	1.50	3.08	1.46	38	20	61	24	12	38
ACETYLENE	6.4	0.0	5.6	3.32	0.00	1.82	73	0	65	45	0	41
C3 + C3=	8.5	0.8	6.8	4.41	2.74	2.21	104	16	86	65	10	53
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.6	0.0	2.2	0.31	0.00	0.71	8	0	29	5	0	18
B1 + 1B	3.4	0.0	0.0	1.76	0.00	0.00	42	0	0	26	0	0
NC4 +B=1=3	5.9	0.9	19.2	3.06	3.08	6.23	75	19	251	47	12	156
TBUTENE-2	1.1	0.0	1.6	0.57	0.00	0.52	14	0	20	8	0	13
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.1	0.0	1.7	0.57	0.00	0.55	14	0	21	8	0	13
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.3	0.0	0.3	0.16	0.00	0.10	4	0	4	2	0	2
ISOPENTANE	5.5	0.0	17.5	2.85	0.00	5.68	69	0	227	43	0	141
PENTENE-1	0.2	0.0	0.3	0.10	0.00	0.10	2	0	4	2	0	2
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	1.6	0.2	3.3	0.83	0.68	1.07	20	4	43	13	3	27
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPLERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 121111
DATE RUN: 02 15 79 AIR CONDITIONER USED
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.7	0.0	1.2	0.36	0.00	0.39	9	0	15	5	0	9
CISPENT-2	0.2	0.0	0.4	0.10	0.00	0.13	2	0	5	2	0	3
2MBUT-2	1.6	0.0	2.3	0.83	0.00	0.75	20	0	29	12	0	18
22MBUTANE	0.1	0.0	0.2	0.05	0.00	0.06	1	0	3	1	0	2
CYPENTENE	0.2	0.0	0.2	0.10	0.00	0.06	2	0	2	1	0	2
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.3	0.0	0.4	0.16	0.00	0.13	4	0	5	2	0	3
23MBUTANE	1.1	0.1	2.8	0.57	0.34	0.91	14	2	36	9	1	22
2MPENTANE	2.6	0.3	6.0	1.35	1.03	1.95	33	6	77	20	4	48
3MPENTANE	2.1	0.2	3.8	1.09	0.68	1.23	26	4	49	16	3	30
HEXENE-1	0.7	0.0	0.6	0.36	0.00	0.19	9	0	8	5	0	5
N HEXANE	0.9	0.1	1.4	0.47	0.34	0.45	11	2	18	7	1	11
TC6=3,=2	1.4	0.0	1.5	0.73	0.00	0.49	17	0	19	11	0	12
CC6=3	0.3	0.0	0.3	0.16	0.00	0.10	4	0	4	2	0	2
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	1.7	0.1	3.0	0.88	0.34	0.97	21	2	38	13	1	23
24MPENTANE	2.7	0.3	5.1	1.40	1.03	1.65	34	6	66	21	4	41
BENZENE	6.9	1.3	14.8	3.58	4.45	4.80	79	25	173	49	15	108
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	5.6	0.6	10.6	2.91	2.05	3.44	70	12	136	44	8	85
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.4	0.1	2.7	0.73	0.34	0.88	18	2	35	11	1	22
224MPENTAN	10.6	1.2	18.9	5.50	4.11	6.13	132	25	242	82	15	151
NHEPTANE	1.3	0.1	1.8	0.67	0.34	0.58	16	2	23	10	1	14
MCYHEXANE	0.6	0.1	1.1	0.31	0.34	0.36	7	2	14	5	1	9
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	2.3	0.2	4.0	1.19	0.68	1.30	29	4	51	18	3	32
234MC5	2.7	0.2	4.5	1.40	0.68	1.46	34	4	58	21	3	36
TOLUENE	10.5	0.2	10.0	5.45	0.68	3.24	121	4	118	75	2	74
23MC6+4MC7	1.7	0.1	2.3	0.88	0.34	0.75	21	2	29	13	1	18

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 121111
DATE RUN: 02 15 79 AIR CONDITIONER USED
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: WARD FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	1.4	0.1	2.1	0.73	0.34	0.68	17	2	27	11	1	17
3MHEPTANE	1.3	0.1	1.9	0.67	0.34	0.62	16	2	24	10	1	15
255MC6	2.0	0.2	3.0	1.04	0.68	0.97	25	4	38	16	3	24
N OCTANE	0.6	0.0	0.9	0.31	0.00	0.29	7	0	12	5	0	7
223MC6	0.3	0.0	0.4	0.16	0.00	0.13	4	0	5	2	0	3
ETCYHEXANE	0.4	0.0	0.5	0.21	0.00	0.16	5	0	6	3	0	4
ET BENZENE	2.0	0.0	1.0	1.04	0.00	0.32	23	0	12	14	0	7
M+PXYLENE	8.4	0.1	4.3	4.36	0.34	1.40	98	2	51	61	1	32
2+4MC8	1.1	0.1	1.2	0.57	0.34	0.39	14	2	15	9	1	10
O XYLENE	3.2	0.1	2.0	1.66	0.34	0.65	37	2	24	23	1	15
N NONANE	1.3	0.0	1.4	0.67	0.00	0.45	16	0	18	10	0	11
IPRBENZENE	0.6	0.0	0.8	0.31	0.00	0.26	7	0	10	4	0	6
NPRBENZENE	0.4	0.0	0.2	0.21	0.00	0.06	5	0	2	3	0	1
1M3ETBENZ	3.2	0.0	1.1	1.66	0.00	0.36	37	0	13	23	0	8
135MEBENZ	1.2	0.0	0.5	0.62	0.00	0.16	14	0	6	9	0	4
1M2ETBENZ	1.3	0.0	1.6	0.67	0.00	0.52	15	0	19	9	0	12
124MBENZ	3.7	0.0	1.4	1.92	0.00	0.45	43	0	17	27	0	10
SBUBENZENE	0.2	0.0	0.2	0.10	0.00	0.06	2	0	2	1	0	1
N DECANE	0.0	0.0	0.2	0.00	0.00	0.06	0	0	3	0	0	2
123MBENZ	0.9	0.0	0.3	0.47	0.00	0.10	11	0	4	7	0	2
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1M3PRBENZ	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
UNKNOWNS	13.6	0.5	12.9	7.06	1.71	4.19	160	10	156	99	6	97

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 121112
DATE RUN: 02 16 79 AIR CONDITIONER USED
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4738H156902 DRIVER: SWARTZLANDER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	182.2	31.4	162.6
GC PPMC	165.3	24.6	165.6

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	25.4	15.8	49.7	15.37	64.23	29.98	376	395	654	234	246	407
SATURATES	50.9	5.7	60.8	30.79	23.17	36.67	674	128	717	419	79	446
OLEFINS	38.3	1.1	23.4	23.17	4.47	14.11	495	24	269	308	15	167
ACETYLENE	7.3	0.0	1.4	4.42	0.00	0.84	88	0	15	54	0	9
NAPTHENES	2.9	0.1	2.7	1.75	0.41	1.63	38	2	31	23	1	19
AROMATICS	30.0	1.7	21.3	18.15	6.91	12.85	364	35	230	226	22	143
BENZENE	5.2	1.3	10.2	3.15	5.28	6.15	62	26	109	39	16	68
TOLUENE	7.9	0.2	5.0	4.78	0.81	3.02	96	4	54	60	3	34
C8+AROM	16.9	0.2	6.1	10.22	0.81	3.68	209	4	67	130	3	42
UNKNOWN	10.5	0.2	6.5	0.00	0.00	0.00	130	4	72	81	3	45
INDIVIDUAL COMPONENTS												
METHANE	25.4	15.8	49.7	15.37	64.23	29.98	376	395	654	234	246	407
ETHYLENE	19.2	0.9	13.6	11.62	3.66	8.20	248	20	157	154	12	97
ETHANE	2.8	0.7	3.1	1.69	2.85	1.87	39	16	38	24	10	24
ACETYLENE	7.3	0.0	1.4	4.42	0.00	0.84	88	0	15	54	0	9
C3 + C3=	7.7	0.2	3.0	4.66	0.81	1.81	100	4	35	62	3	21
C=C=C	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.3	0.1	0.8	0.18	0.41	0.48	4	2	10	2	1	6
B1 + IB	3.8	0.0	0.8	2.30	0.00	0.48	49	0	9	31	0	6
NC4 +B=1=3	3.9	0.5	6.4	2.36	2.03	3.86	52	11	76	32	7	47
TBUTENE-2	1.0	0.0	0.8	0.60	0.00	0.48	13	0	9	8	0	6
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.8	0.0	1.1	0.48	0.00	0.66	10	0	13	6	0	8
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.3	0.0	0.3	0.18	0.00	0.18	4	0	3	2	0	2
ISOPENTANE	4.3	0.6	7.8	2.60	2.44	4.70	57	14	92	36	8	57
PENTENE-1	0.2	0.0	0.2	0.12	0.00	0.12	3	0	2	2	0	1
2MBUT-1	0.4	0.0	0.0	0.24	0.00	0.00	5	0	0	3	0	0
NPENTANE	1.0	0.1	1.6	0.60	0.41	0.97	13	2	19	8	1	12
2MB=1=3	0.2	0.0	0.0	0.12	0.00	0.00	3	0	0	2	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 121112
DATE RUN: 02 16 79 AIR CONDITIONER USED
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K4736M156902 DRIVEN: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.7	0.0	0.6	0.42	0.00	0.36	9	0	7	6	0	4
CISPENT-2	0.3	0.0	0.2	0.18	0.00	0.12	4	0	2	2	0	1
2MBUT-2	1.4	0.0	1.0	0.85	0.00	0.60	16	0	12	11	0	7
22MBUTANE	0.1	0.1	1.7	0.06	0.41	1.03	1	2	20	1	1	12
CYPENTENE	0.2	0.0	0.2	0.12	0.00	0.12	3	0	2	2	0	1
3MPENTENE	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.1	0.0	0.3	0.06	0.00	0.18	1	0	3	1	0	2
23MBUTANE	1.0	0.1	1.4	0.60	0.41	0.84	13	2	17	8	1	10
2MPENTANE	2.1	0.3	3.0	1.27	1.22	1.81	28	7	35	17	4	22
3MPENTANE	1.6	0.2	2.0	0.97	0.81	1.21	21	4	24	13	3	15
HEXENE-1	0.5	0.0	0.5	0.30	0.00	0.30	6	0	6	4	0	4
N HEXANE	0.8	0.0	0.8	0.48	0.00	0.48	11	0	9	7	0	6
TC6=3,=2	1.2	0.0	0.8	0.73	0.00	0.48	16	0	9	10	0	6
CC6=3	0.2	0.0	0.3	0.12	0.00	0.18	3	0	3	2	0	2
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	1.4	0.1	1.5	0.85	0.41	0.90	18	2	17	11	1	11
24MPENTANE	2.4	0.2	2.8	1.45	0.81	1.69	32	4	33	20	3	20
BENZENE	5.2	1.3	10.2	3.15	5.28	6.15	62	26	109	39	16	68
CYHEXANE	0.5	0.0	0.0	0.30	0.00	0.00	6	0	0	4	0	0
2MC6+23MC5	5.1	0.5	5.4	3.09	2.03	3.26	67	11	63	42	7	39
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.3	0.1	1.4	0.79	0.41	0.84	17	2	16	11	1	10
224MPENTAN	9.7	1.0	9.8	5.87	4.07	5.91	128	22	115	79	14	71
NHEPTANE	1.1	0.0	1.1	0.67	0.00	0.66	15	0	13	9	0	8
MCYHEXANE	0.6	0.0	0.6	0.36	0.00	0.36	8	0	7	5	0	4
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	2.2	0.2	2.1	1.33	0.81	1.27	29	4	25	18	3	15
234MC5	2.5	0.2	2.3	1.51	0.81	1.39	33	4	27	20	3	17
TOLUENE	7.9	0.2	5.0	4.78	0.81	3.02	96	4	54	60	3	34
23MC6+4MC7	1.4	0.2	1.3	0.85	0.81	0.78	18	4	15	11	3	9

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 121112
DATE RUN: 02 16 79 AIR CONDITIONER USED
CAR: 1978 BUICK V6 TURBOCHARGE VIN: 4K473BH156902 DRIVER: SWARTZLANDER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.2	0.1	1.1	0.73	0.41	0.66	16	2	13	10	1	8
3MHEPTANE	1.1	0.1	1.1	0.67	0.41	0.66	14	2	13	9	1	8
255MC6	1.8	0.1	1.6	1.09	0.41	0.97	24	2	19	15	1	12
N OCTANE	0.6	0.2	0.5	0.36	0.81	0.30	8	4	6	5	3	4
223MC6	0.3	0.0	0.3	0.16	0.00	0.18	4	0	4	2	0	2
ETCYHEXANE	0.3	0.0	0.3	0.18	0.00	0.18	4	0	3	2	0	2
ET BENZENE	1.5	0.0	0.5	0.91	0.00	0.30	18	0	5	11	0	3
M+PXYLENE	5.2	0.1	2.0	3.15	0.41	1.21	64	2	22	40	1	14
244MC8	0.9	0.1	0.6	0.54	0.41	0.36	12	2	7	7	1	4
O XYLENE	2.3	0.1	0.9	1.39	0.41	0.54	28	2	10	17	1	6
N NONANE	1.1	0.0	0.7	0.67	0.00	0.42	14	0	8	9	0	5
IPRBENZENE	0.6	0.0	0.4	0.36	0.00	0.24	7	0	4	5	0	3
NPRBENZENE	0.3	0.0	0.1	0.18	0.00	0.06	4	0	1	2	0	1
1M3ETBENZ	2.0	0.0	0.2	1.21	0.00	0.12	25	0	2	15	0	1
135MEBENZ	0.8	0.0	0.3	0.48	0.00	0.18	10	0	3	6	0	2
1M2ETBENZ	1.2	0.0	0.9	0.73	0.00	0.54	15	0	10	9	0	6
124MBENZ	2.1	0.0	0.6	1.27	0.00	0.36	26	0	7	16	0	4
SBUBENZENE	0.2	0.0	0.1	0.12	0.00	0.06	2	0	1	2	0	1
N DECANE	0.3	0.0	0.1	0.18	0.00	0.06	4	0	1	2	0	1
123MBENZ	0.4	0.0	0.1	0.24	0.00	0.06	5	0	1	3	0	1
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.2	0.0	0.0	0.12	0.00	0.00	2	0	0	2	0	0
UNKNOWNS	10.5	0.2	6.5	6.35	0.81	3.92	130	4	72	81	3	45

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130001
DATE RUN: 04 09 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVEN: HYEK FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 0

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	584.5	17.6	43.2
GC PPMC	588.4	15.1	38.6

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	39.8	5.9	8.5	6.76	39.07	22.02	541	111	114	336	69	71
SATURATES	282.8	8.0	21.2	48.06	52.98	54.92	3441	135	255	2139	84	159
OLEFINS	81.5	0.6	2.3	13.85	3.97	5.96	969	10	27	602	6	17
ACETYLENE	14.5	0.0	0.0	2.46	0.00	0.00	160	0	0	99	0	0
NAPTHENES	14.3	0.0	0.6	2.43	0.00	1.55	170	0	7	106	0	4
AROMATICS	105.3	0.4	4.7	17.90	2.65	12.18	1175	6	52	730	4	32
BENZENE	18.1	0.1	0.9	3.08	0.66	2.33	200	2	10	124	1	6
TOLUENE	27.0	0.1	1.3	4.59	0.66	3.37	301	2	14	187	1	9
C8+AROM	60.2	0.2	2.5	10.23	1.32	6.48	683	3	28	424	2	17
UNKNOWN	50.2	0.2	1.3	0.00	0.00	0.00	571	3	15	355	2	9
INDIVIDUAL COMPONENTS												
METHANE	39.8	5.9	8.5	6.76	39.07	22.02	541	111	114	336	69	71
ETHYLENE	25.2	0.3	1.5	4.28	1.99	3.89	300	5	18	186	3	11
ETHANE	3.4	1.8	2.0	0.58	11.92	5.18	43	32	25	27	20	16
ACETYLENE	14.5	0.0	0.0	2.46	0.00	0.00	160	0	0	99	0	0
C3 + C3=	9.4	0.2	0.5	1.60	1.32	1.30	112	3	6	69	2	4
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	6.6	0.3	0.7	1.12	1.99	1.61	81	5	9	51	3	5
B1 + IB	4.4	0.0	0.0	0.75	0.00	0.00	52	0	0	33	0	0
NC4 +B=1=3	33.2	1.8	3.4	5.64	11.92	8.81	409	31	41	254	19	26
TBUTENE-2	3.6	0.0	0.1	0.61	0.00	0.26	43	0	1	27	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	3.4	0.0	0.1	0.58	0.00	0.26	40	0	1	25	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.9	0.0	0.0	0.15	0.00	0.00	11	0	0	7	0	0
ISOPENTANE	38.1	1.1	2.5	6.48	7.28	6.48	466	19	30	290	12	19
PENTENE-1	1.9	0.0	0.0	0.32	0.00	0.00	23	0	0	14	0	0
2MBUT-1	3.0	0.0	0.0	0.51	0.00	0.00	36	0	0	22	0	0
NPENTANE	7.6	0.2	0.5	1.29	1.32	1.30	93	3	6	58	2	4
2MB=1=3	0.3	0.0	0.0	0.05	0.00	0.00	3	0	0	2	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130001
DATE RUN: 04 09 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYEK FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT-2	5.1	0.0	0.0	0.87	0.00	0.00	61	0	0	38	0	0
CISPENT-2	2.7	0.0	0.0	0.46	0.00	0.00	32	0	0	20	0	0
2MBUT-2	9.1	0.0	0.1	1.55	0.00	0.26	108	0	1	67	0	1
22MBUTANE	0.7	0.5	0.3	0.12	3.31	0.78	9	8	4	5	5	2
CYPENTENE	1.1	0.0	0.0	0.19	0.00	0.00	13	0	0	8	0	0
3MPENTENE	0.8	0.0	0.0	0.14	0.00	0.00	10	0	0	6	0	0
CYPENTANE	0.9	0.0	0.0	0.15	0.00	0.00	11	0	0	7	0	0
23MBUTANE	7.2	0.1	0.3	1.22	0.66	0.78	88	2	4	54	1	2
2MPENTANE	16.6	0.2	0.7	2.82	1.32	1.81	202	3	8	126	2	5
3MPENTANE	9.2	0.2	0.5	1.56	1.32	1.30	112	3	6	70	2	4
HEXENE-1	2.4	0.0	0.0	0.41	0.00	0.00	29	0	0	18	0	0
N HEXANE	4.0	0.0	0.2	0.68	0.00	0.52	49	0	2	30	0	1
TC6=3,=2	5.0	0.0	0.0	0.85	0.00	0.00	59	0	0	37	0	0
CC6=3	1.3	0.0	0.0	0.22	0.00	0.00	15	0	0	10	0	0
2MPENTENE2	1.9	0.1	0.0	0.32	0.66	0.00	23	2	0	14	1	0
MCYP43M2C5	7.2	0.0	0.3	1.22	0.00	0.78	86	0	4	53	0	2
24MPENTANE	12.6	0.1	0.6	2.14	0.66	1.55	153	2	7	95	1	4
BENZENE	18.1	0.1	0.9	3.08	0.66	2.33	200	2	10	124	1	6
CYHEXANE	1.5	0.0	0.0	0.25	0.00	0.00	18	0	0	11	0	0
2MC6+23MC5	33.9	0.3	1.7	5.76	1.99	4.40	411	5	20	256	3	13
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	6.5	0.1	0.3	1.10	0.66	0.78	79	2	4	49	1	2
224MPENTAN	41.8	0.9	3.6	7.10	5.96	9.33	506	15	43	314	9	27
NHEPTANE	5.2	0.0	0.2	0.88	0.00	0.52	63	0	2	39	0	1
MCYHEXANE	3.3	0.0	0.2	0.56	0.00	0.52	39	0	2	24	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	9.7	0.1	0.6	1.65	0.66	1.55	117	2	7	73	1	4
234MC5	14.4	0.1	0.9	2.45	0.66	2.33	174	2	11	108	1	7
TOLUENE	27.0	0.1	1.3	4.59	0.66	3.37	301	2	14	187	1	9
23MC6+4MC7	6.0	0.1	0.4	1.02	0.66	1.04	73	2	5	45	1	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130001
DATE RUN: 04 09 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYEK FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	5.1	0.1	0.3	0.87	0.66	0.78	62	2	4	38	1	2
3MHEPTANE	5.3	0.0	0.3	0.90	0.00	0.78	64	0	4	40	0	2
255MC6	5.2	0.0	0.4	0.88	0.00	1.04	63	0	5	39	0	3
N OCTANE	2.4	0.0	0.1	0.41	0.00	0.26	29	0	1	18	0	1
223MC6	1.0	0.0	0.1	0.17	0.00	0.26	12	0	1	8	0	1
ETCYHEXANE	1.4	0.0	0.1	0.24	0.00	0.26	17	0	1	10	0	1
ET BENZENE	4.1	0.0	0.2	0.70	0.00	0.52	46	0	2	29	0	1
M+PXYLENE	16.8	0.1	0.7	2.86	0.66	1.81	189	2	8	117	1	5
2+4MC8	3.1	0.0	0.3	0.53	0.00	0.78	37	0	4	23	0	2
O XYLENE	7.4	0.1	0.3	1.26	0.66	0.78	83	2	3	52	1	2
N NONANE	3.4	0.0	0.3	0.58	0.00	0.78	41	0	4	26	0	2
IPRBENZENE	2.5	0.0	0.2	0.42	0.00	0.52	28	0	2	18	0	1
NPRBENZENE	1.0	0.0	0.1	0.17	0.00	0.26	11	0	1	7	0	1
1M3ETBENZ	6.6	0.0	0.2	1.12	0.00	0.52	75	0	2	46	0	1
135MEBENZ	2.7	0.0	0.5	0.46	0.00	1.30	31	0	6	19	0	3
1M2ETHENZ	4.1	0.0	0.1	0.70	0.00	0.26	46	0	1	29	0	1
124MBENZ	8.3	0.0	0.2	1.41	0.00	0.52	94	0	2	58	0	1
SBUBENZENE	1.1	0.0	0.0	0.19	0.00	0.00	13	0	0	8	0	0
N DECANE	0.6	0.0	0.0	0.10	0.00	0.00	7	0	0	4	0	0
123MBENZ	2.0	0.0	0.0	0.34	0.00	0.00	23	0	0	14	0	0
INDANE	1.2	0.0	0.0	0.20	0.00	0.00	13	0	0	8	0	0
1JEBENZENE	0.4	0.0	0.0	0.07	0.00	0.00	5	0	0	3	0	0
NBUBENZENE	0.8	0.0	0.0	0.14	0.00	0.00	9	0	0	6	0	0
1M3PRBENZ	1.2	0.0	0.0	0.20	0.00	0.00	14	0	0	8	0	0
UNKNOWNS	50.2	0.2	1.3	8.53	1.32	3.37	571	3	15	355	2	9

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130002
DATE RUN: 04 10 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYEK FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 0

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	472.6	19.7	48.8
GC PPMC	508.8	16.6	39.0

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	35.3	5.7	6.6	6.94	34.34	16.92	480	113	104	298	70	65
SATURATES	258.9	9.5	21.9	50.88	57.23	56.15	3152	169	309	1959	105	192
OLEFINS	66.2	0.9	1.9	13.01	5.42	4.87	787	16	26	489	10	16
ACETYLENE	11.9	0.0	0.0	2.34	0.00	0.00	131	0	0	82	0	0
NAPTHENES	12.1	0.0	0.6	2.38	0.00	1.54	144	0	8	89	0	5
AROMATICS	84.1	0.5	6.0	16.53	3.01	15.38	939	8	78	584	5	48
BENZENE	14.9	0.1	0.8	2.93	0.60	2.05	164	2	10	102	1	6
TOLUENE	21.6	0.2	1.5	4.25	1.20	3.85	241	3	19	150	2	12
C8+AROM	47.6	0.2	3.7	9.36	1.20	9.49	540	3	49	336	2	30
UNKNOWN	40.3	0.0	2.0	0.00	0.00	0.00	459	0	26	285	0	16
INDIVIDUAL COMPONENTS												
METHANE	35.3	5.7	6.6	6.94	34.34	16.92	480	113	104	298	70	65
ETHYLENE	21.6	0.5	1.2	4.25	3.01	3.08	257	9	17	160	5	10
ETHANE	3.2	2.0	1.7	0.63	12.05	4.36	41	37	25	25	23	16
ACETYLENE	11.9	0.0	0.0	2.34	0.00	0.00	131	0	0	82	0	0
C3 + C3=	7.6	0.3	0.3	1.49	1.81	0.77	90	5	4	56	3	3
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	6.9	0.4	0.7	1.36	2.41	1.79	85	7	10	53	4	6
B1 + IB	3.2	0.0	0.0	0.63	0.00	0.00	38	0	0	24	0	0
NC4 +B=1=3	35.2	2.2	3.3	6.92	13.25	8.46	434	40	47	269	25	29
TBUTENE-2	3.2	0.0	0.1	0.63	0.00	0.26	38	0	1	24	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	3.1	0.0	0.1	0.61	0.00	0.26	37	0	1	23	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.8	0.0	0.0	0.16	0.00	0.00	10	0	0	6	0	0
ISOPENTANE	37.3	1.4	2.5	7.33	8.43	6.41	456	25	35	284	16	22
PENTENE-1	1.6	0.0	0.0	0.31	0.00	0.00	19	0	0	12	0	0
2MBUT-1	2.1	0.0	0.0	0.41	0.00	0.00	25	0	0	16	0	0
NPENTANE	7.1	0.3	0.5	1.40	1.81	1.28	87	5	7	54	3	4
2MB=1=3	0.2	0.0	0.0	0.04	0.00	0.00	2	0	0	1	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130002
DATE RUN: 04 10 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYEK FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	4.2	0.0	0.1	0.83	0.00	0.26	50	0	1	31	0	1
CISPENT-2	2.2	0.0	0.0	0.43	0.00	0.00	26	0	0	16	0	0
2MBUT-2	7.0	0.0	0.1	1.38	0.00	0.26	83	0	1	52	0	1
22MBUTANE	0.5	0.1	0.1	0.10	0.60	0.26	6	2	1	4	1	1
CYPENTENE	0.9	0.0	0.0	0.18	0.00	0.00	10	0	0	6	0	0
3MPENTENE	0.6	0.0	0.0	0.12	0.00	0.00	7	0	0	4	0	0
CYPENTANE	0.7	0.0	0.0	0.14	0.00	0.00	8	0	0	5	0	0
23MBUTANE	5.8	0.1	0.3	1.14	0.60	0.77	71	2	4	44	1	3
2MPENTANE	13.7	0.3	0.8	2.69	1.81	2.05	167	5	11	104	3	7
3MPENTANE	8.1	0.2	0.6	1.59	1.20	1.54	99	6	8	61	2	5
HEXENE-1	1.9	0.0	0.0	0.37	0.00	0.00	23	0	0	14	0	0
N HEXANE	3.4	0.1	0.2	0.67	0.60	0.51	41	2	3	26	1	2
TC6=3,=2	3.8	0.0	0.0	0.75	0.00	0.00	45	0	0	28	0	0
CC6=3	1.0	0.0	0.0	0.20	0.00	0.00	12	0	0	7	0	0
2MPENTENE2	1.2	0.1	0.0	0.24	0.60	0.00	14	2	0	9	1	0
MCYP43M2C5	6.1	0.0	0.3	1.20	0.00	0.77	73	0	4	45	0	3
24MPENTANE	10.3	0.2	0.6	2.02	1.20	1.54	125	4	8	78	2	5
BENZENE	14.9	0.1	0.8	2.93	0.60	2.05	164	2	10	102	1	6
CYHEXANE	1.4	0.0	0.0	0.28	0.00	0.00	17	0	0	10	0	0
2MC6+23MC5	27.9	0.4	1.8	5.48	2.41	4.62	339	7	25	210	4	16
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	5.5	0.1	0.4	1.08	0.60	1.03	67	2	6	41	1	3
224MPENTAN	43.7	1.1	3.9	8.59	6.63	10.00	529	19	55	329	12	34
NHEPTANE	4.6	0.0	0.2	0.90	0.00	0.51	56	0	3	35	0	2
MCYHEXANE	2.8	0.0	0.2	0.55	0.00	0.51	33	0	3	21	0	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	7.8	0.1	0.6	1.53	0.60	1.54	94	2	8	59	1	5
234MC5	11.9	0.2	1.0	2.34	1.20	2.56	144	4	14	90	2	9
TOLUENE	21.6	0.2	1.5	4.25	1.20	3.85	241	3	19	150	2	12
23MC6+4MC7	4.8	0.1	0.4	0.94	0.60	1.03	58	2	6	36	1	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130002
DATE RUN: 04 10 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYEK FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	4.1	0.1	0.4	0.81	0.60	1.03	50	2	6	31	1	3
3MHEPTANE	4.3	0.0	0.3	0.85	0.00	0.77	52	0	4	32	0	3
255MC6	4.1	0.1	0.5	0.81	0.60	1.28	50	2	7	31	1	4
N OCTANE	1.9	0.0	0.2	0.37	0.00	0.51	23	0	3	14	0	2
223MC6	0.8	0.0	0.1	0.16	0.00	0.26	10	0	1	6	0	1
ETCYHEXANE	1.1	0.0	0.1	0.22	0.00	0.26	13	0	1	8	0	1
ET BENZENE	3.3	0.0	0.2	0.65	0.00	0.51	37	0	3	23	0	2
M+PXYLENE	13.3	0.1	1.0	2.61	0.60	2.56	150	2	13	93	1	8
244MC8	2.6	0.0	0.4	0.51	0.00	1.03	31	0	6	20	0	3
O XYLENE	5.8	0.1	0.5	1.14	0.60	1.28	65	2	7	41	1	4
N NONANE	2.8	0.0	0.4	0.55	0.00	1.03	34	0	6	21	0	3
IPRBENZENE	2.0	0.0	0.2	0.39	0.00	0.51	23	0	3	14	0	2
NPRBENZENE	0.8	0.0	0.0	0.16	0.00	0.00	9	0	0	6	0	0
1M3ETBENZ	5.2	0.0	0.2	1.02	0.00	0.51	59	0	3	37	0	2
135MEBENZ	2.1	0.0	0.2	0.41	0.00	0.51	24	0	3	15	0	2
1M2ETBENZ	3.4	0.0	0.6	0.67	0.00	1.54	38	0	8	24	0	5
124MBENZ	6.6	0.0	0.5	1.30	0.00	1.28	75	0	7	46	0	4
SBUBENZENE	1.0	0.0	0.2	0.20	0.00	0.51	11	0	3	7	0	2
N DECANE	0.6	0.0	0.0	0.12	0.00	0.00	7	0	0	4	0	0
123MBENZ	1.6	0.0	0.1	0.31	0.00	0.26	18	0	1	11	0	1
INDANE	0.5	0.0	0.0	0.10	0.00	0.00	6	0	0	3	0	0
13EBENZENE	0.4	0.0	0.0	0.08	0.00	0.00	5	0	0	3	0	0
NBUBENZENE	0.7	0.0	0.0	0.14	0.00	0.00	8	0	0	5	0	0
1M3PRBENZ	0.9	0.0	0.0	0.18	0.00	0.00	10	0	0	6	0	0
UNKNOWNS	40.3	0.0	2.0	7.92	0.00	5.13	459	0	26	285	0	16

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130201
DATE RUN: 04 06 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYEK FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FLIDERAL TEST PROCEDURE

TEST TEMPERATURE = 20

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	330.3	16.6	33.0
GC PPMC	358.6	15.0	20.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	29.5	5.7	4.2	7.11	38.00	20.69	307	101	82	191	63	51
SATURATES	182.2	7.9	12.4	50.81	52.67	61.08	1964	125	217	1221	78	135
OLEFINS	41.7	0.6	0.7	11.63	4.00	3.45	439	9	12	273	6	7
ACETYLENE	4.6	0.0	0.0	1.28	0.00	0.00	45	0	0	28	0	0
NAPTHENES	9.3	0.0	0.3	2.59	0.00	1.48	98	0	5	61	0	3
AROMATICS	64.7	0.8	1.6	18.04	5.33	7.88	640	12	26	398	7	16
BENZENE	11.3	0.2	0.4	3.15	1.33	1.97	110	3	6	69	2	4
TOLUENE	16.4	0.3	0.6	4.57	2.00	2.96	162	4	10	101	3	6
C8+AROM	37.0	0.3	0.6	10.32	2.00	2.96	372	4	10	231	3	6
UNKNOWN	30.6	0.0	1.1	0.00	0.00	0.09	308	0	18	192	0	11
INDIVIDUAL COMPONENTS												
METHANE	29.5	5.7	4.2	7.11	38.00	20.69	307	101	82	191	63	51
ETHYLENE	14.8	0.3	0.5	4.13	2.00	2.46	156	5	9	97	3	5
ETHANE	2.4	1.6	0.9	0.67	10.67	4.43	27	27	16	17	17	10
ACETYLENE	4.6	0.0	0.0	1.28	0.00	0.00	45	0	0	28	0	0
C3 + C3=	5.7	0.2	0.2	1.59	1.33	0.99	60	3	3	37	2	2
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	3.5	0.4	0.5	0.98	2.67	2.46	36	6	9	24	4	6
B1 + 1B	2.3	0.0	0.0	0.64	0.00	0.00	24	0	0	15	0	0
NC4 +B=1=3	18.4	2.0	2.7	5.13	13.33	13.30	201	32	48	125	20	30
TBUTENE-2	1.6	0.0	0.0	0.45	0.00	0.00	17	0	0	10	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.5	0.0	0.0	0.42	0.00	0.00	16	0	0	10	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.4	0.0	0.0	0.11	0.00	0.00	4	0	0	3	0	0
ISOPENTANE	20.9	1.1	1.9	5.83	7.33	9.36	226	18	33	141	11	21
PENTENE-1	0.7	0.0	0.0	0.20	0.00	0.00	7	0	0	5	0	0
2MBUT-1	1.1	0.0	0.0	0.31	0.00	0.00	12	0	0	7	0	0
NPENTANE	4.3	0.2	0.4	1.20	1.33	1.97	47	3	7	29	2	4
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130201
DATE RUN: 04 06 79
CAR: DATSUN PRUTOTYPE VIN: KHLA10-004508 DRIVER: HYEK FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	2.1	0.0	0.0	0.59	0.00	0.00	22	0	0	14	0	0
CISPENT-2	1.1	0.0	0.0	0.31	0.00	0.00	12	0	0	7	0	0
2MBUT-2	3.7	0.0	0.0	1.03	0.00	0.00	39	0	0	24	0	0
22MBUTANE	0.4	0.1	0.1	0.11	0.67	0.49	4	2	2	3	1	1
CYPENTENE	0.5	0.0	0.0	0.14	0.00	0.00	5	0	0	3	0	0
3MPENTENE	0.3	0.0	0.0	0.08	0.00	0.00	3	0	0	2	0	0
CYPFNTANE	0.5	0.0	0.0	0.14	0.00	0.00	5	0	0	3	0	0
23MBUTANE	4.0	0.1	0.2	1.12	0.67	0.99	43	2	3	27	1	2
2MPENTANE	10.1	0.3	0.5	2.82	2.00	2.46	109	5	9	68	3	5
3MPENTANE	5.6	0.2	0.4	1.56	1.33	1.97	60	3	7	38	2	4
HEXENE-1	1.3	0.0	0.0	0.36	0.00	0.00	14	0	0	9	0	0
N HEXANE	2.4	0.0	0.1	0.67	0.00	0.49	26	0	2	16	0	1
TC6=3,=2	3.3	0.0	0.0	0.92	0.00	0.00	35	0	0	22	0	0
CC6=3	0.6	0.0	0.0	0.17	0.00	0.00	6	0	0	4	0	0
2MPENTENE2	0.7	0.1	0.0	0.20	0.67	0.00	7	2	0	5	1	0
MCYP43M2C5	4.4	0.0	0.2	1.23	0.00	0.99	46	0	3	29	0	2
24MPENTANE	7.9	0.2	0.3	2.20	1.33	1.48	85	3	5	53	2	3
BENZENE	11.3	0.2	0.4	3.15	1.33	1.97	110	3	6	69	2	4
CYHEXANE	1.1	0.0	0.0	0.31	0.00	0.00	12	0	0	7	0	0
2MC6+23MC5	21.6	0.3	0.8	6.02	2.00	3.94	232	5	14	144	3	9
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	4.3	0.1	0.2	1.20	0.67	0.99	46	2	3	29	1	2
224MPENTAN	35.0	0.9	2.0	9.76	6.00	9.85	375	14	35	233	9	22
NHEPTANE	3.5	0.0	0.1	0.98	0.00	0.49	38	0	2	23	0	1
MCYHEXANE	2.3	0.0	0.1	0.64	0.00	0.49	24	0	2	15	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	6.4	0.1	0.2	1.78	0.67	0.99	69	2	3	43	1	2
234MC5	9.5	0.1	0.4	2.65	0.67	1.97	102	2	7	63	1	4
TOLUENE	16.4	0.3	0.6	4.57	2.00	2.96	162	4	10	101	3	6
23MC6+4MC7	4.0	0.1	0.2	1.12	0.67	0.99	43	2	3	27	1	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130201
DATE RUN: 04 06 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYEK FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	3.4	0.0	0.1	0.95	0.00	0.49	36	0	2	23	0	1
3MHEPTANE	3.6	0.0	0.1	1.00	0.00	0.49	39	0	2	24	0	1
255MC6	3.5	0.1	0.1	0.98	0.67	0.49	37	2	2	23	1	1
N OCTANE	1.6	0.0	0.1	0.45	0.00	0.49	17	0	2	11	0	1
223MC6	0.7	0.0	0.0	0.20	0.00	0.00	7	0	0	5	0	0
ETCYHEXANE	1.0	0.0	0.0	0.28	0.00	0.00	11	0	0	7	0	0
ET BENZENE	2.5	0.0	0.1	0.70	0.00	0.49	25	0	2	15	0	1
M+PXYLENE	9.9	0.2	0.3	2.76	1.33	1.48	99	3	5	61	2	3
2+4MC8	2.2	0.0	0.1	0.61	0.00	0.49	24	0	2	15	0	1
O XYLENE	4.4	0.1	0.2	1.23	0.67	0.99	44	1	3	27	1	2
N NONANE	2.4	0.0	0.0	0.67	0.00	0.00	26	0	0	16	0	0
IPRBENZENE	1.7	0.0	0.0	0.47	0.00	0.00	17	0	0	11	0	0
NPRBENZENE	0.6	0.0	0.0	0.17	0.00	0.00	6	0	0	4	0	0
1M3ETBENZ	3.9	0.0	0.0	1.09	0.00	0.00	39	0	0	24	0	0
135MEBENZ	1.6	0.0	0.0	0.45	0.00	0.00	16	0	0	10	0	0
1M2ETBENZ	2.9	0.0	0.0	0.81	0.00	0.00	29	0	0	18	0	0
124MBENZ	4.9	0.0	0.0	1.37	0.00	0.00	49	0	0	31	0	0
SBUBENZENE	0.8	0.0	0.0	0.22	0.00	0.00	8	0	0	5	0	0
N DECANE	0.6	0.0	0.0	0.17	0.00	0.00	6	0	0	4	0	0
123MBENZ	1.2	0.0	0.0	0.33	0.00	0.00	12	0	0	7	0	0
INDANE	1.2	0.0	0.0	0.33	0.00	0.00	12	0	0	7	0	0
13EBENZENE	0.3	0.0	0.0	0.08	0.00	0.00	3	0	0	2	0	0
NBUBENZENE	0.5	0.0	0.0	0.14	0.00	0.00	5	0	0	3	0	0
1M3PRBENZ	0.6	0.0	0.0	0.17	0.00	0.00	6	0	0	4	0	0
UNKNOWNS	30.6	0.0	1.1	8.53	0.00	5.42	308	0	18	192	0	11

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130202
DATE RUN: 04 11 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYEK FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 20

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	373.1	18.4	41.5
GC PPMC	319.1	13.6	33.7

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	23.8	4.9	6.5	7.46	36.03	19.29	380	114	99	236	71	62
SATURATES	156.1	7.6	21.5	48.92	55.88	63.80	2230	158	294	1386	98	183
OLEFINS	42.5	0.5	1.6	13.32	3.68	4.75	593	10	21	368	6	13
ACETYLENE	5.3	0.0	0.0	1.66	0.00	0.00	69	0	0	43	0	0
NAPTHENES	8.0	0.0	0.5	2.51	0.00	1.48	112	0	7	69	0	4
AROMATICS	55.9	0.5	2.8	17.52	3.68	8.31	732	10	35	455	6	22
BENZENE	8.4	0.1	0.5	2.63	0.74	1.48	109	2	6	68	1	4
TOLUENE	14.4	0.2	0.9	4.51	1.47	2.67	189	4	11	117	2	7
C8+AROM	33.1	0.2	1.4	10.37	1.47	4.15	441	4	18	274	2	11
UNKNOWN	27.5	0.1	0.8	0.00	0.00	0.00	367	2	10	228	1	6
INDIVIDUAL COMPONENTS												
METHANE	23.8	4.9	6.5	7.46	36.03	19.29	380	114	99	236	71	62
ETHYLENE	16.9	0.3	1.2	5.30	2.21	3.56	236	6	16	147	4	10
ETHANE	2.5	1.5	1.7	0.78	11.03	5.04	37	33	24	23	20	15
ACETYLENE	5.3	0.0	0.0	1.66	0.00	0.00	69	0	0	43	0	0
C3 + C3=	5.1	0.0	0.3	1.60	0.00	0.89	71	0	4	44	0	2
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	2.7	0.3	0.8	0.85	2.21	2.37	39	6	11	24	4	7
B1 + 1B	2.2	0.0	0.0	0.69	0.00	0.00	31	0	0	19	0	0
NC4 +B=1=3	14.2	1.5	3.9	4.45	11.03	11.57	205	32	54	128	20	33
TBUTENE-2	1.7	0.0	0.1	0.53	0.00	0.30	24	0	1	15	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.6	0.0	0.0	0.50	0.00	0.00	22	0	0	14	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.4	0.0	0.0	0.13	0.00	0.00	6	0	0	3	0	0
ISOPENTANE	16.4	1.1	3.2	5.14	8.09	9.50	235	24	44	146	14	27
PENTENE-1	0.7	0.0	0.0	0.22	0.00	0.00	10	0	0	6	0	0
2MBUT-1	1.0	0.0	0.0	0.31	0.00	0.00	14	0	0	9	0	0
NPENTANE	3.5	0.3	0.6	1.10	2.21	1.78	50	6	8	31	4	5
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130202
DATE RUN: 04 11 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: MYER FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	2.1	0.0	0.0	0.66	0.00	0.00	29	0	0	18	0	0
CISPENT-2	1.1	0.0	0.0	0.34	0.00	0.00	15	0	0	10	0	0
2MBUT-2	3.7	0.0	0.0	1.16	0.00	0.00	52	0	0	32	0	0
22MBUTANE	0.8	0.2	0.4	0.25	1.47	1.19	11	4	5	7	3	3
CYPENTENE	0.5	0.0	0.0	0.16	0.00	0.00	7	0	0	4	0	0
3MPENTENE	0.3	0.0	0.0	0.09	0.00	0.00	4	0	0	3	0	0
CYPENTANE	0.4	0.0	0.0	0.13	0.00	0.00	6	0	0	3	0	0
23MBUTANE	3.4	0.1	0.4	1.07	0.74	1.19	49	2	5	30	1	3
2MPENTANE	8.5	0.3	0.9	2.66	2.21	2.67	121	6	12	75	4	8
3MPENTANE	4.7	0.2	0.7	1.47	1.47	2.08	67	4	10	42	3	6
HEXENE-1	1.2	0.1	0.0	0.38	0.74	0.00	17	2	0	10	1	0
N HEXANE	2.1	0.0	0.2	0.66	0.00	0.59	30	0	3	19	0	2
TC6=3=2	2.5	0.0	0.0	0.78	0.00	0.00	35	0	0	22	0	0
CC6=3	0.7	0.0	0.0	0.22	0.00	0.00	10	0	0	6	0	0
2MPENTENE2	0.8	0.1	0.0	0.25	0.74	0.00	11	2	0	7	1	0
MCYP43M2C5	3.8	0.0	0.3	1.19	0.00	0.89	53	0	4	33	0	2
24MPENTANE	6.7	0.2	0.6	2.10	1.47	1.78	95	4	8	59	3	5
BENZENE	8.4	0.1	0.5	2.63	0.74	1.48	109	2	6	68	1	4
CYHEXANE	0.9	0.0	0.0	0.28	0.00	0.00	13	0	0	8	0	0
2MC6+23MC5	18.5	0.4	1.5	5.80	2.94	4.45	263	8	28	164	5	17
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.7	0.1	0.3	1.16	0.74	0.89	53	2	4	33	1	3
224MPENTAN	29.9	1.0	3.6	9.37	7.35	10.68	425	21	49	264	13	30
NHEPTANE	3.3	0.0	0.1	1.03	0.00	0.30	47	0	1	29	0	1
MCYHEXANE	2.0	0.0	0.1	0.63	0.00	0.30	28	0	1	17	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	5.6	0.1	0.4	1.75	0.74	1.19	80	2	5	49	1	3
234MC5	8.7	0.1	0.7	2.73	0.74	2.08	124	2	10	77	1	6
TOLUENE	14.4	0.2	0.9	4.51	1.47	2.67	189	4	11	117	2	7
23MC6+4MC7	3.6	0.1	0.3	1.13	0.74	0.89	51	2	4	32	1	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130202
DATE RUN: 04 11 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: MYER FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 20

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	373.1	18.4	41.5
GC PPMC	319.1	13.6	33.7

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	23.8	4.9	6.5	7.46	36.03	19.29	380	114	99	236	71	62
SATURATES	156.1	7.6	21.5	48.92	55.88	63.80	2230	158	294	1386	98	183
OLEFINS	42.5	0.5	1.6	13.32	3.68	4.75	593	10	21	368	6	13
ACETYLENE	5.3	0.0	0.0	1.66	0.00	0.00	69	0	0	43	0	0
NAPTHENES	8.0	0.0	0.5	2.51	0.00	1.48	112	0	7	69	0	4
AROMATICS	55.9	0.5	2.8	17.52	3.68	8.31	732	10	35	455	6	22
BENZENE	8.4	0.1	0.5	2.63	0.74	1.48	109	2	6	68	1	4
TOLUENE	14.4	0.2	0.9	4.51	1.47	2.67	189	4	11	117	2	7
C8+AROM	33.1	0.2	1.4	10.37	1.47	4.15	441	4	18	274	2	11
UNKNOWN	27.5	0.1	0.8	0.00	0.00	0.00	367	2	10	228	1	6
INDIVIDUAL COMPONENTS												
METHANE	23.8	4.9	6.5	7.46	36.03	19.29	380	114	99	236	71	62
ETHYLENE	16.9	0.3	1.2	5.30	2.21	3.56	236	6	16	147	4	10
ETHANE	2.5	1.5	1.7	0.78	11.03	5.04	37	33	24	23	20	15
ACETYLENE	5.3	0.0	0.0	1.66	0.00	0.00	69	0	0	43	0	0
C3 + C3=	5.1	0.0	0.3	1.60	0.00	0.89	71	0	4	44	0	2
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	2.7	0.3	0.8	0.85	2.21	2.37	39	6	11	24	4	7
B1 + 1B	2.2	0.0	0.0	0.69	0.00	0.00	31	0	0	19	0	0
NC4 +B=1=3	14.2	1.5	3.9	4.45	11.03	11.57	205	32	54	128	20	33
TBUTENE-2	1.7	0.0	0.1	0.53	0.00	0.30	24	0	1	15	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.6	0.0	0.0	0.50	0.00	0.00	22	0	0	14	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.4	0.0	0.0	0.13	0.00	0.00	6	0	0	3	0	0
ISOPENTANE	16.4	1.1	3.2	5.14	8.09	9.50	235	23	44	146	14	27
PENTENE-1	0.7	0.0	0.0	0.22	0.00	0.00	10	0	0	6	0	0
2MBUT-1	1.0	0.0	0.0	0.31	0.00	0.00	14	0	0	9	0	0
NPENTANE	3.5	0.3	0.6	1.10	2.21	1.78	50	6	8	31	4	5
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130202
DATE RUN: 04 11 79
CAR: DATSUN PROTOTYPE VIN: KMLA10-004508 DRIVER: MYER FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	2.1	0.0	0.0	0.66	0.00	0.00	29	0	0	18	0	0
CISPENT-2	1.1	0.0	0.0	0.34	0.00	0.00	15	0	0	10	0	0
2MBUT-2	3.7	0.0	0.0	1.16	0.00	0.00	52	0	0	32	0	0
22MBUTANE	0.8	0.2	0.4	0.25	1.47	1.19	11	4	5	7	3	3
CYPENTENE	0.5	0.0	0.0	0.16	0.00	0.00	7	0	0	4	0	0
3MPENTENE	0.3	0.0	0.0	0.09	0.00	0.00	4	0	0	3	0	0
CYPENTANE	0.4	0.0	0.0	0.13	0.00	0.00	6	0	0	3	0	0
23MBUTANE	3.4	0.1	0.4	1.07	0.74	1.19	49	2	5	30	1	3
2MPENTANE	8.5	0.3	0.9	2.66	2.21	2.67	121	6	12	75	4	8
3MPENTANE	4.7	0.2	0.7	1.47	1.47	2.08	67	4	10	42	3	6
HEXENE-1	1.2	0.1	0.0	0.38	0.74	0.00	17	2	0	10	1	0
N HEXANE	2.1	0.0	0.2	0.66	0.00	0.59	30	0	3	19	0	2
TC6=3.=2	2.5	0.0	0.0	0.78	0.00	0.00	35	0	0	22	0	0
CC6=3	0.7	0.0	0.0	0.22	0.00	0.00	10	0	0	6	0	0
2MPENTENE2	0.8	0.1	0.0	0.25	0.74	0.00	11	2	0	7	1	0
MCYP43M2C5	3.8	0.0	0.3	1.19	0.00	0.89	53	0	4	33	0	2
24MPENTANE	6.7	0.2	0.6	2.10	1.47	1.78	95	4	8	59	3	5
BENZENE	8.4	0.1	0.5	2.63	0.74	1.48	109	2	6	68	1	4
CYHEXANE	0.9	0.0	0.0	0.28	0.00	0.00	13	0	0	8	0	0
2MC6+23MC5	18.5	0.4	1.5	5.80	2.94	4.45	263	8	20	164	5	13
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.7	0.1	0.3	1.16	0.74	0.89	53	2	4	33	1	3
224MPENTAN	29.9	1.0	3.6	9.37	7.35	10.68	425	21	49	264	13	30
NHEPTANE	3.3	0.0	0.1	1.03	0.00	0.30	47	0	1	29	0	1
MCYHEXANE	2.0	0.0	0.1	0.63	0.00	0.30	28	0	1	17	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	5.6	0.1	0.4	1.75	0.74	1.19	80	2	5	49	1	3
234MC5	8.7	0.1	0.7	2.73	0.74	2.08	124	2	10	77	1	6
TOLUENE	14.4	0.2	0.9	4.51	1.47	2.67	189	4	11	117	2	7
23MC6+4MC7	3.6	0.1	0.3	1.13	0.74	0.89	51	2	4	32	1	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130202
DATE RUN: 04 11 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYEK FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	3.1	0.1	0.2	0.97	0.74	0.59	44	2	3	27	1	2
3MHEPTANE	3.3	0.0	0.2	1.03	0.00	0.59	47	0	3	29	0	2
255MC6	4.0	0.0	0.3	1.25	0.00	0.89	57	0	4	35	0	3
N OCTANE	1.5	0.0	0.1	0.47	0.00	0.30	21	0	1	13	0	1
223MC6	0.7	0.0	0.0	0.22	0.00	0.00	10	0	0	6	0	0
ETCYHEXANE	0.9	0.0	0.1	0.28	0.00	0.30	13	0	1	8	0	1
ET BENZENE	2.4	0.0	0.1	0.75	0.00	0.30	32	0	1	20	0	1
M+PXYLENE	8.8	0.1	0.3	2.76	0.74	0.89	116	2	4	72	1	2
2+4MC8	2.0	0.0	0.2	0.63	0.00	0.59	28	0	3	18	0	2
O XYLENE	3.9	0.1	0.2	1.22	0.74	0.59	51	2	3	32	1	2
N NONANE	2.2	0.0	0.2	0.69	0.00	0.59	31	0	3	19	0	2
IPRBENZENE	1.6	0.0	0.1	0.50	0.00	0.30	21	0	1	13	0	1
NPRBENZENE	0.6	0.0	0.1	0.19	0.00	0.30	8	0	1	5	0	1
IM3ETBENZ	3.5	0.0	0.3	1.10	0.00	0.89	46	0	4	29	0	2
135MEBENZ	1.4	0.0	0.0	0.44	0.00	0.00	19	0	0	12	0	0
IM2ETBENZ	2.7	0.0	0.1	0.85	0.00	0.30	36	0	1	22	0	1
124MBENZ	4.0	0.0	0.1	1.25	0.00	0.30	53	0	1	33	0	1
SBUBENZENE	0.8	0.0	0.1	0.25	0.00	0.30	11	0	1	7	0	1
N DECANE	0.5	0.0	0.0	0.16	0.00	0.00	7	0	0	4	0	0
123MBENZ	1.0	0.0	0.0	0.31	0.00	0.00	13	0	0	8	0	0
INDANE	1.1	0.0	0.0	0.34	0.00	0.00	14	0	0	9	0	0
I3ETBENZENE	0.3	0.0	0.0	0.09	0.00	0.00	4	0	0	2	0	0
NBUBENZENE	0.5	0.0	0.0	0.16	0.00	0.00	7	0	0	4	0	0
IN3PRBENZ	0.5	0.0	0.0	0.16	0.00	0.00	7	0	0	4	0	0
UNKNOWNS	27.5	0.1	0.8	8.62	0.74	2.37	367	2	10	228	1	6

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130401
DATE RUN: 04 05 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYEK FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 40

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	228.2	19.3	38.0
GC PPMC	201.2	18.6	36.8

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	20.0	5.1	6.5	9.94	30.72	18.68	294	96	81	183	60	51
SATURATES	84.2	9.9	23.0	41.85	59.64	66.09	1110	187	258	690	104	160
OLEFINS	28.5	0.5	1.7	14.16	3.01	4.89	367	8	19	228	5	12
ACETYLENE	2.0	0.0	0.0	0.99	0.00	0.00	24	0	0	15	0	0
NAPTHENES	4.4	0.0	0.5	2.19	0.00	1.44	57	0	5	35	0	3
AROMATICS	40.5	0.4	2.1	20.13	2.41	6.03	490	6	22	304	4	13
BENZENE	5.8	0.2	0.6	2.88	1.20	1.72	69	3	6	43	2	4
TOLUENE	8.5	0.2	0.9	4.22	1.20	2.59	103	3	9	64	2	6
C8+AROM	26.2	0.0	0.6	13.02	0.00	1.72	322	0	6	200	0	4
UNKNOWN	21.6	0.7	1.0	0.00	0.00	0.00	266	11	10	165	7	7
INDIVIDUAL COMPONENTS												
METHANE	20.0	5.1	6.5	9.94	30.72	18.68	294	96	81	183	60	51
ETHYLENE	15.0	0.2	1.1	7.46	1.20	3.16	193	3	12	120	2	7
ETHANE	2.8	1.1	1.5	1.39	6.63	4.31	39	19	18	24	12	11
ACETYLENE	2.0	0.0	0.0	0.99	0.00	0.00	24	0	0	15	0	0
C3 + C3=	3.6	0.2	0.3	1.79	1.20	0.86	46	3	3	29	2	2
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.7	0.7	1.0	0.84	4.22	2.67	23	12	11	14	7	7
B1 + IB	1.2	0.0	0.0	0.60	0.00	0.00	15	0	0	10	0	0
NC4 +B=1=3	8.8	3.1	5.0	4.37	18.67	14.37	117	53	57	73	33	35
TBUTENE-2	1.0	0.0	0.1	0.50	0.00	0.29	13	0	1	8	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	1.1	0.0	0.1	0.55	0.00	0.29	14	0	1	9	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.0	0.10	0.00	0.00	3	0	0	2	0	0
ISOPENTANE	8.4	1.4	3.8	4.17	8.43	10.92	111	24	43	69	15	27
PENTENE-1	0.3	0.0	0.0	0.15	0.00	0.00	4	0	0	2	0	0
2MBUT-1	0.3	0.0	0.0	0.15	0.00	0.00	4	0	0	2	0	0
NPENTANE	2.0	0.3	0.7	0.99	1.81	2.01	26	5	8	16	3	5
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130401
DATE RUN: 04 05 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: MYER FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT-2	0.9	0.0	0.0	0.45	0.00	0.00	12	0	0	7	0	0
CISPENT-2	0.4	0.0	0.0	0.20	0.00	0.00	5	0	0	3	0	0
2MBUT-2	1.8	0.0	0.1	0.89	0.00	0.29	23	0	1	14	0	1
22MBUTANE	0.3	0.5	0.3	0.15	3.01	0.86	4	8	3	2	5	2
CYPENTENE	0.3	0.0	0.0	0.15	0.00	0.00	4	0	0	2	0	0
3MPENTENE	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.2	0.0	0.1	0.10	0.00	0.29	3	0	1	2	0	1
23MBUTANE	1.6	0.1	0.4	0.80	0.60	1.15	21	2	4	13	1	3
2MPENTANE	4.0	0.3	0.9	1.99	1.81	2.59	53	5	10	33	3	6
3MPENTANE	2.2	0.2	0.7	1.09	1.20	2.01	29	3	8	18	2	5
HEXENE-1	0.5	0.0	0.0	0.25	0.00	0.00	6	0	0	4	0	0
N HEXANE	1.0	0.1	0.2	0.50	0.60	0.57	13	2	2	8	1	1
TC6=3,=2	1.5	0.0	0.0	0.75	0.00	0.00	19	0	0	12	0	0
CC6=3	0.3	0.0	0.0	0.15	0.00	0.00	4	0	0	2	0	0
2MPENTENE2	0.0	0.1	0.0	0.00	0.60	0.00	0	2	0	0	1	0
MCYP43M2C5	2.1	0.0	0.3	1.04	0.00	0.86	27	0	3	17	0	2
24MPENTANE	3.2	0.2	0.6	1.59	1.20	1.72	42	3	7	26	2	4
BENZENE	5.8	0.2	0.6	2.88	1.20	1.72	69	3	6	43	2	4
CYHEXANE	0.6	0.0	0.0	0.30	0.00	0.00	8	0	0	5	0	0
2MC6+23MC5	9.0	0.4	1.6	4.47	2.41	4.60	116	7	18	73	4	11
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.8	0.1	0.3	0.89	0.60	0.86	24	2	3	15	1	2
224MPENTAN	15.3	0.9	3.7	7.60	5.42	10.63	200	15	41	125	9	26
NHEPTANE	1.6	0.0	0.1	0.80	0.00	0.29	21	0	1	13	0	1
MCYHEXANE	1.0	0.0	0.1	0.50	0.00	0.29	13	0	1	8	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	3.0	0.1	0.4	1.49	0.60	1.15	39	2	4	24	1	3
234MC5	4.6	0.1	0.6	2.29	0.60	1.72	60	2	7	37	1	4
TOLUENE	8.5	0.2	0.9	4.22	1.20	2.59	103	3	9	64	2	6
23MC6+4MC7	2.1	0.1	0.3	1.04	0.60	0.86	28	2	3	17	1	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130401
DATE RUN: 04 05 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYLK FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.8	0.1	0.2	0.89	0.60	0.57	24	2	2	15	1	1
3MHEPTANE	1.8	0.0	0.2	0.89	0.00	0.57	24	0	2	15	0	1
255MC6	2.3	0.1	0.2	1.14	0.60	0.57	30	2	2	19	1	1
N OCTANE	0.9	0.0	0.1	0.45	0.00	0.29	12	0	1	7	0	1
223MC6	0.4	0.0	0.0	0.20	0.00	0.00	5	0	0	3	0	0
ETCYHEXANE	0.5	0.0	0.0	0.25	0.00	0.00	6	0	0	4	0	0
ET BENZENE	1.5	0.0	0.1	0.75	0.00	0.29	18	0	1	11	0	1
M+PXYLENE	6.3	0.0	0.3	3.13	0.00	0.86	77	0	3	48	0	2
244MC8	1.4	0.0	0.2	0.70	0.00	0.57	18	0	2	11	0	1
O XYLENE	2.8	0.0	0.2	1.39	0.00	0.57	34	0	2	21	0	1
N NONANE	1.8	0.0	0.0	0.89	0.00	0.00	24	0	0	15	0	0
IPRBENZENE	1.1	0.0	0.0	0.55	0.00	0.00	13	0	0	8	0	0
NPRBENZENE	0.4	0.0	0.0	0.20	0.00	0.00	5	0	0	3	0	0
1M3ETBENZ	3.0	0.0	0.0	1.49	0.00	0.00	37	0	0	23	0	0
135MEBENZ	1.3	0.0	0.0	0.65	0.00	0.00	16	0	0	10	0	0
1M2ETBENZ	2.1	0.0	0.0	1.04	0.00	0.00	26	0	0	16	0	0
124MBENZ	4.0	0.0	0.0	1.99	0.00	0.00	49	0	0	30	0	0
SBUBENZENE	0.6	0.0	0.0	0.30	0.00	0.00	7	0	0	5	0	0
N DECANE	0.4	0.0	0.0	0.20	0.00	0.00	5	0	0	3	0	0
123MBENZ	1.0	0.0	0.0	0.50	0.00	0.00	12	0	0	8	0	0
INDANE	0.9	0.0	0.0	0.45	0.00	0.00	11	0	0	7	0	0
13EBENZENE	0.2	0.0	0.0	0.10	0.00	0.00	2	0	0	2	0	0
NBUBENZENE	0.4	0.0	0.0	0.20	0.00	0.00	5	0	0	3	0	0
1M3PRBENZ	0.6	0.0	0.0	0.30	0.00	0.00	7	0	0	5	0	0
UNKNOWNS	21.6	0.7	1.0	10.74	4.22	2.87	266	11	10	165	7	7

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130402
DATE RUN: 04 12 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYEK FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 40

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	208.3	16.3	38.7
GC PPMC	211.2	15.8	35.6

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	19.6	6.3	7.1	9.28	39.87	19.83	263	111	90	163	69	56
SATURATES	94.2	8.4	22.6	44.60	53.16	63.13	1130	133	256	702	82	159
OLEFINS	25.5	0.5	1.6	12.07	3.16	4.47	299	8	18	186	5	11
ACETYLENE	3.5	0.0	0.0	1.66	0.00	0.00	38	0	0	24	0	0
NAPTHENES	4.7	0.0	0.4	2.23	0.00	1.12	55	0	4	34	0	3
AROMATICS	42.4	0.3	3.4	20.08	1.90	9.50	466	4	35	290	3	22
BENZENE	6.6	0.1	0.4	3.13	0.63	1.12	72	1	4	45	1	3
TOLUENE	10.3	0.2	1.0	4.88	1.27	2.79	113	3	10	70	2	6
C8+AROM	25.5	0.0	2.0	12.07	0.00	5.59	285	0	21	177	0	13
UNKNOWN	21.3	0.3	0.7	0.00	0.00	0.00	239	4	7	148	3	5
INDIVIDUAL COMPONENTS												
METHANE	19.6	6.3	7.1	9.28	39.87	19.83	263	111	90	163	69	56
ETHYLENE	11.1	0.2	0.8	5.26	1.27	2.23	130	3	9	81	2	6
ETHANE	2.2	1.3	1.4	1.04	8.23	3.91	28	21	17	17	13	10
ACETYLENE	3.5	0.0	0.0	1.66	0.00	0.00	38	0	0	24	0	0
C3 + C3=	3.9	0.2	0.3	1.85	1.27	0.84	46	3	3	28	2	2
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.7	0.4	1.1	0.80	2.53	3.07	21	6	13	13	4	8
B1 + 1B	1.6	0.0	0.0	0.76	0.00	0.00	19	0	0	12	0	0
NC4 +B=1=3	8.6	2.3	5.4	4.07	14.56	15.08	104	37	62	65	23	39
TBUTENE-2	0.9	0.0	0.1	0.43	0.00	0.28	11	0	1	7	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.8	0.0	0.1	0.38	0.00	0.28	9	0	1	6	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.0	0.09	0.00	0.00	2	0	0	1	0	0
ISOPENTANE	9.1	1.3	3.8	4.31	8.23	10.61	110	21	43	68	13	27
PENTENE-1	0.3	0.0	0.0	0.14	0.00	0.00	4	0	0	2	0	0
2MBUT-1	0.5	0.0	0.0	0.24	0.00	0.00	6	0	0	4	0	0
NPENTANE	1.9	0.3	0.9	0.90	1.90	2.51	23	5	10	14	3	6
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130402
DATE RUN: 04 12 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYEK FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	1.0	0.0	0.1	0.47	0.00	0.28	12	0	1	7	0	1
CISPLNT-2	0.5	0.0	0.0	0.24	0.00	0.00	6	0	0	4	0	0
2MBUT-2	1.6	0.0	0.2	0.76	0.00	0.56	19	0	2	12	0	1
22MBUTANE	0.1	0.1	0.1	0.05	0.63	0.28	1	2	1	1	1	1
CYPENTENE	0.2	0.0	0.0	0.09	0.00	0.00	2	0	0	1	0	0
3MPENTENE	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.2	0.0	0.0	0.09	0.00	0.00	2	0	0	1	0	0
23MBUTANE	1.9	0.1	0.4	0.90	0.63	1.12	23	2	5	14	1	3
2MPENTANE	3.9	0.2	0.9	1.85	1.27	2.51	47	3	10	29	2	6
3MPENTANE	2.6	0.2	0.7	1.23	1.27	1.96	31	3	8	19	2	5
HEXENE-1	0.6	0.0	0.0	0.28	0.00	0.00	7	0	0	4	0	0
N HEXANE	1.1	0.1	0.3	0.52	0.63	0.84	13	2	3	8	1	2
TC6=3,=2	1.6	0.0	0.0	0.76	0.00	0.00	19	0	0	12	0	0
CC6=3	0.3	0.0	0.0	0.14	0.00	0.00	4	0	0	2	0	0
2MPENTENE2	0.3	0.1	0.0	0.14	0.63	0.00	4	2	0	2	1	0
MCYP43M2C5	2.1	0.0	0.3	0.99	0.00	0.84	25	0	3	15	0	2
24MPENTANE	3.9	0.2	0.6	1.85	1.27	1.68	47	3	7	29	2	4
BENZENE	6.6	0.1	0.4	3.13	0.63	1.12	72	1	4	45	1	3
CYHEXANE	0.6	0.0	0.0	0.28	0.00	0.00	7	0	0	4	0	0
2MC6+23MC5	11.3	0.4	1.4	5.35	2.53	3.91	135	6	16	84	4	10
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.3	0.1	0.3	1.09	0.63	0.84	27	2	3	17	1	2
224MPENTAN	19.2	1.0	3.3	9.09	6.33	9.22	229	16	37	142	10	23
NHEPTANE	1.9	0.0	0.1	0.90	0.00	0.28	23	0	1	14	0	1
MCYHEXANE	1.2	0.0	0.1	0.57	0.00	0.28	14	0	1	9	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	3.7	0.1	0.3	1.75	0.63	0.84	44	2	3	27	1	2
234MC5	5.6	0.1	0.5	2.65	0.63	1.40	67	2	6	42	1	4
TOLUENE	10.3	0.2	1.0	4.88	1.27	2.79	113	3	10	70	2	6
23MC6+4MC7	2.4	0.1	0.2	1.14	0.63	0.56	29	2	2	18	1	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130402
DATE RUN: 04 12 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYEK FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANL	2.0	0.0	0.2	0.95	0.00	0.56	24	0	2	15	0	1
3MHEPTANE	2.1	0.0	0.2	0.99	0.00	0.56	25	0	2	16	0	1
255MC6	2.1	0.1	0.2	0.99	0.63	0.56	25	2	2	16	1	1
N OCTANE	0.9	0.0	0.1	0.43	0.00	0.28	11	0	1	7	0	1
223MC6	0.5	0.0	0.0	0.24	0.00	0.00	6	0	0	4	0	0
ETCYHEXANE	0.6	0.0	0.0	0.28	0.00	0.00	7	0	0	4	0	0
ET BENZENE	1.7	0.0	0.1	0.80	0.00	0.28	19	0	1	12	0	1
M+PXYLENE	6.8	0.0	0.6	3.22	0.00	1.68	75	0	6	47	0	4
2+4MC6	1.4	0.0	0.1	0.66	0.00	0.28	17	0	1	10	0	1
O XYLENE	3.0	0.0	0.2	1.42	0.00	0.56	33	0	2	21	0	1
N NONANE	1.5	0.0	0.1	0.71	0.00	0.28	18	0	1	11	0	1
IPRBENZENE	1.1	0.0	0.1	0.52	0.00	0.28	12	0	1	8	0	1
NPRBENZENE	0.4	0.0	0.0	0.19	0.00	0.00	4	0	0	3	0	0
1M3ETBENZ	2.8	0.0	0.2	1.33	0.00	0.56	31	0	2	19	0	1
135MEBENZ	1.1	0.0	0.1	0.52	0.00	0.28	12	0	1	8	0	1
1M2ETBENZ	1.8	0.0	0.2	0.85	0.00	0.56	20	0	2	12	0	1
124MBENZ	3.6	0.0	0.4	1.70	0.00	1.12	40	0	4	25	0	3
SBUBENZENE	0.5	0.0	0.1	0.24	0.00	0.28	6	0	1	3	0	1
N DECANE	0.3	0.0	0.0	0.14	0.00	0.00	4	0	0	2	0	0
123MBENZ	0.9	0.0	0.0	0.43	0.00	0.00	10	0	0	6	0	0
INDANE	0.8	0.0	0.0	0.38	0.00	0.00	9	0	0	5	0	0
13EBENZENE	0.2	0.0	0.0	0.09	0.00	0.00	2	0	0	1	0	0
NBUBENZENE	0.3	0.0	0.0	0.14	0.00	0.00	3	0	0	2	0	0
1M3PRBENZ	0.5	0.0	0.0	0.24	0.00	0.00	6	0	0	3	0	0
UNKNOWNS	21.3	0.3	0.7	10.09	1.90	1.96	239	4	7	148	3	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130403
DATE RUN: 04 19 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYEK FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 40

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	196.9	17.8	39.1
GC PPMC	188.8	20.5	35.7

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	18.5	5.1	6.4	9.80	19.25	17.93	254	58	87	158	36	54
SATURATES	87.4	9.1	24.2	46.29	34.34	67.79	1076	92	295	669	57	183
OLEFINS	25.8	0.3	1.7	13.67	1.13	4.76	310	3	20	193	2	13
ACETYLENE	3.5	0.0	0.0	1.85	0.00	0.00	39	0	0	24	0	0
NAPTHENES	4.9	0.1	0.4	2.60	0.38	1.12	59	1	5	37	1	3
AROMATICS	35.3	9.0	2.5	18.70	33.96	7.00	399	83	28	248	52	17
BENZENE	7.0	0.6	0.5	3.71	2.26	1.40	78	5	6	49	3	3
TOLUENE	8.9	1.3	0.9	4.71	4.91	2.52	101	12	10	62	7	6
C8+AROM	19.4	7.1	1.1	10.28	26.79	3.08	223	67	12	138	42	8
UNKNOWN	13.4	2.9	0.5	0.00	0.00	0.00	154	27	6	96	17	4
INDIVIDUAL COMPONENTS												
METHANE	18.5	5.1	6.4	9.80	19.25	17.93	254	58	87	158	36	54
ETHYLENE	11.3	0.2	1.1	5.99	0.75	3.08	136	2	13	84	1	8
ETHANE	2.3	1.1	1.5	1.22	4.15	4.20	30	12	19	18	7	12
ACETYLENE	3.5	0.0	0.0	1.85	0.00	0.00	39	0	0	24	0	0
C3 + C3=	4.0	0.1	0.3	2.12	0.38	0.84	48	1	4	30	1	2
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	1.5	0.4	1.0	0.79	1.51	2.80	19	4	12	12	3	8
B1 + 1B	1.6	0.0	0.0	0.85	0.00	0.00	19	0	0	12	0	0
NC4 +B=1=3	8.2	2.2	4.8	4.34	8.30	13.45	102	23	59	63	14	37
TBUTENE-2	0.9	0.0	0.1	0.48	0.00	0.28	11	0	1	7	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.9	0.0	0.1	0.48	0.00	0.28	11	0	1	7	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.0	0.11	0.00	0.00	2	0	0	1	0	0
ISOPENTANE	6.9	1.3	4.0	4.71	4.91	11.20	110	13	49	68	8	30
PENTENE-1	0.3	0.0	0.0	0.16	0.00	0.00	4	0	0	2	0	0
2MBUT-1	0.5	0.0	0.0	0.26	0.00	0.00	6	0	0	4	0	0
NPENTANE	2.0	0.3	0.7	1.06	1.13	1.96	25	3	9	15	2	5
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130403
DATE RUN: 04 19 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYEK FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	1.0	0.0	0.0	0.53	0.00	0.00	12	0	0	7	0	0
CISPENT-2	0.5	0.0	0.0	0.26	0.00	0.00	6	0	0	4	0	0
2MBUT-2	1.7	0.0	0.1	0.90	0.00	0.28	20	0	1	13	0	1
22MBUTANE	0.8	0.1	0.4	0.42	0.38	1.12	10	1	5	6	1	3
CYPENTENE	0.3	0.0	0.0	0.16	0.00	0.00	4	0	0	2	0	0
3MPENTENE	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.2	0.0	0.0	0.11	0.00	0.00	2	0	0	1	0	0
23MBUTANE	1.8	0.1	0.5	0.95	0.38	1.40	22	1	6	14	1	4
2MPENTANE	4.6	0.3	1.0	2.44	1.13	2.80	57	3	12	35	2	8
3MPENTANE	2.5	0.3	0.8	1.32	1.13	2.24	31	3	10	19	2	6
HEXENE-1	0.6	0.0	0.0	0.32	0.00	0.00	7	0	0	4	0	0
N HEXANE	1.1	0.1	0.3	0.58	0.38	0.84	14	1	4	8	1	2
TC6=3,=2	1.6	0.0	0.0	0.85	0.00	0.00	19	0	0	12	0	0
CC6=3	0.3	0.0	0.0	0.16	0.00	0.00	4	0	0	2	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	2.4	0.1	0.3	1.27	0.38	0.84	29	1	4	18	1	2
24MPENTANE	3.6	0.2	0.7	1.91	0.75	1.96	44	2	8	27	1	5
BENZENE	7.0	0.6	0.5	3.71	2.26	1.40	78	5	6	49	3	3
CYHEXANE	0.7	0.0	0.0	0.37	0.00	0.00	8	0	0	5	0	0
2MC6+23MC5	10.2	0.5	1.8	5.40	1.89	5.04	125	5	22	78	3	14
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.1	0.1	0.3	1.11	0.38	0.84	26	1	4	16	1	2
224MPENTAN	16.8	1.2	4.0	8.90	4.53	11.20	206	12	48	126	7	30
NHEPTANE	1.7	0.1	0.1	0.90	0.38	0.28	21	1	1	13	1	1
MCYHEXANE	1.1	0.0	0.1	0.58	0.00	0.28	13	0	1	8	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	3.1	0.1	0.4	1.64	0.38	1.12	38	1	5	24	1	3
234MC5	4.7	0.2	0.7	2.49	0.75	1.96	58	2	8	36	1	5
TOLUENE	8.9	1.3	0.9	4.71	4.91	2.52	101	12	10	62	7	6
23MC6+4MC7	2.1	0.2	0.3	1.11	0.75	0.84	26	2	4	16	1	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130403
DATE RUN: 04 19 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYER FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.7	0.1	0.2	0.90	0.38	0.56	21	1	2	13	1	2
3MHEPTANE	1.7	0.1	0.2	0.90	0.38	0.56	21	1	2	13	1	2
255MC6	1.8	0.1	0.3	0.95	0.38	0.84	22	1	4	14	1	2
N OCTANE	0.8	0.0	0.1	0.42	0.00	0.28	10	0	1	6	0	1
223MC6	0.4	0.0	0.0	0.21	0.00	0.00	5	0	0	3	0	0
ETCYHEXANE	0.5	0.0	0.0	0.26	0.00	0.00	6	0	0	4	0	0
ET BENZENE	1.4	0.3	0.1	0.74	1.13	0.28	16	3	1	10	2	1
M+PXYLENE	5.5	2.8	0.2	2.91	7.55	0.56	63	19	2	39	12	1
244MC8	1.2	0.0	0.1	0.64	0.00	0.28	15	0	1	9	0	1
O XYLENE	2.3	0.9	0.2	1.22	3.40	0.56	26	8	2	16	5	1
N NONANE	1.5	0.0	0.0	0.79	0.00	0.00	18	0	0	11	0	0
IPRBENZENE	0.8	0.1	0.1	0.42	0.38	0.28	9	1	1	6	1	1
NPRBENZENE	0.3	0.1	0.1	0.16	0.38	0.28	3	1	1	2	1	1
1M3ETBENZ	2.1	0.9	0.2	1.11	3.40	0.56	24	8	2	15	5	1
135MEBENZ	0.8	0.4	0.1	0.42	1.51	0.28	9	4	1	6	2	1
1M2ETBENZ	1.5	0.2	0.0	0.79	0.75	0.00	17	2	0	11	1	0
124MBENZ	2.5	1.6	0.1	1.32	6.04	0.28	29	15	1	18	9	1
SBUBENZENE	0.4	0.2	0.0	0.21	0.75	0.00	5	2	0	3	1	0
N DECANE	0.3	0.0	0.0	0.16	0.00	0.00	4	0	0	2	0	0
123MBENZ	0.6	0.4	0.0	0.32	1.51	0.00	7	4	0	4	2	0
INDANE	0.6	0.0	0.0	0.32	0.00	0.00	7	0	0	4	0	0
13EBENZENE	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
NBUBENZENE	0.2	0.0	0.0	0.11	0.00	0.00	2	0	0	1	0	0
1M3PRBENZ	0.3	0.0	0.0	0.16	0.00	0.00	3	0	0	2	0	0
UNKNOWNS	13.4	2.9	0.5	7.10	10.94	1.40	154	27	6	96	17	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130601
DATE RUN: 03 22 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-00450R DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 60

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	172.3	23.0	46.1
GC PPMC	169.6	20.9	44.2

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	17.9	8.3	8.5	10.55	39.71	19.23	234	129	103	145	80	64
SATURATES	64.2	10.3	27.6	37.85	49.28	62.44	750	144	299	466	89	186
OLEFINS	15.6	0.4	1.4	9.20	1.91	3.17	178	5	15	111	3	9
ACETYLENE	7.0	0.0	0.0	4.13	0.00	0.00	74	0	0	46	0	0
NAPTHENES	2.4	0.1	0.6	1.42	0.48	1.36	27	1	6	17	1	4
AROMATICS	43.3	0.8	5.1	25.53	3.83	11.54	464	10	51	288	6	32
BENZENE	5.1	0.4	1.1	3.01	1.91	2.49	54	5	11	34	3	7
TOLUENE	10.5	0.4	1.5	6.19	1.91	3.39	113	5	15	70	3	9
C8+AROM	27.7	0.0	2.5	16.33	0.00	5.66	302	0	25	188	0	16
UNKNOWN	19.2	1.0	1.0	0.00	0.00	0.00	210	13	10	130	8	6
INDIVIDUAL COMPONENTS												
METHANE	17.9	8.3	8.5	10.55	39.71	19.23	234	129	103	145	80	64
ETHYLENE	8.4	0.3	0.9	4.95	1.44	2.04	96	4	10	60	3	6
ETHANE	2.2	1.1	1.4	1.30	5.26	3.17	27	16	16	17	10	10
ACETYLENE	7.0	0.0	0.0	4.13	0.00	0.00	74	0	0	46	0	0
C3 + C3=	2.2	0.1	0.3	1.30	0.48	0.68	25	1	3	16	1	2
C=C=C	0.4	0.0	0.0	0.24	0.00	0.00	4	0	0	3	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.7	0.4	0.8	0.41	1.91	1.81	8	6	9	5	4	5
B1 + 1B	0.9	0.0	0.0	0.53	0.00	0.00	10	0	0	6	0	0
NC4 +B=1=3	6.5	2.6	5.8	3.83	12.44	13.12	77	37	64	48	23	40
TBUTENE-2	0.5	0.0	0.1	0.29	0.00	0.23	6	0	1	4	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.4	0.0	0.0	0.24	0.00	0.00	5	0	0	3	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	5.3	1.2	3.5	3.13	5.74	7.92	62	17	38	39	10	24
PENTENE-1	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	1.2	0.3	0.6	0.71	1.44	1.36	14	4	7	9	3	4
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130601
DATE RUN: 03 22 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	0.4	0.0	0.0	0.24	0.00	0.00	5	0	0	3	0	0
CISPENT-2	0.2	0.0	0.0	0.12	0.00	0.00	2	0	0	1	0	0
2MBUT-2	0.8	0.0	0.1	0.47	0.00	0.23	9	0	1	6	0	1
22MBUTANL	0.4	1.1	0.9	0.24	5.76	2.04	5	15	10	3	10	6
CYPENTENE	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.1	0.0	0.1	0.06	0.00	0.23	1	0	1	1	0	1
23MHUTANE	1.1	0.2	0.5	0.65	0.96	1.13	13	3	5	8	2	3
2MPENTANE	2.5	0.3	0.9	1.47	1.44	2.04	29	4	10	18	3	6
3MPENTANE	1.4	0.2	0.9	0.83	0.96	2.04	16	3	10	10	2	6
HEXENE-1	0.2	0.0	0.0	0.12	0.00	0.00	2	0	0	1	0	0
N HEXANE	0.9	0.1	0.4	0.53	0.48	0.90	11	1	4	7	1	3
TC6=3,=2	0.7	0.0	0.0	0.41	0.00	0.00	8	0	0	5	0	0
CC6=3	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP4JM2C5	1.2	0.1	0.3	0.71	0.48	0.68	14	1	3	9	1	2
24MPENTANE	2.4	0.2	0.8	1.42	0.96	1.81	28	3	9	17	2	5
BENZLNE	5.1	0.4	1.1	3.01	1.91	2.49	54	5	11	34	3	7
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	5.6	0.4	1.7	3.30	1.91	3.85	65	6	18	41	3	11
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.9	0.1	0.6	1.12	0.48	1.36	22	1	6	14	1	4
224MPENTAN	12.2	1.3	4.7	7.19	6.22	10.63	142	18	51	88	11	31
NHEPTANE	1.7	0.1	0.4	1.00	0.48	0.90	20	1	4	12	1	3
MCYHEXANE	0.5	0.0	0.1	0.29	0.00	0.23	6	0	1	4	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	2.9	0.1	0.7	1.71	0.48	1.58	34	1	8	21	1	5
234MC5	3.2	0.2	0.7	1.89	0.96	1.58	37	3	8	23	2	5
TOLUENE	10.5	0.4	1.5	6.19	1.91	3.39	113	5	15	70	3	9
23MC6+4MC7	1.7	0.1	0.4	1.00	0.48	0.90	20	1	4	12	1	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130601
DATE RUN: 03 22 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYLR FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.1	0.1	0.4	1.24	0.48	0.90	24	1	4	15	1	3
3MHEPTANE	1.9	0.1	0.3	1.12	0.48	0.66	22	1	3	14	1	2
255MC6	2.0	0.1	0.4	1.18	0.48	0.90	23	1	4	14	1	3
N OCTANE	1.2	0.0	0.2	0.71	0.00	0.45	14	0	2	9	0	1
223MC6	0.3	0.0	0.1	0.18	0.00	0.23	3	0	1	2	0	1
ETCYHEXANE	0.6	0.0	0.1	0.35	0.00	0.23	7	0	1	4	0	1
ET BENZENE	1.8	0.0	0.1	1.06	0.00	0.23	19	0	1	12	0	1
M+PXYLENE	8.0	0.0	0.7	4.72	0.00	1.58	86	0	7	54	0	4
2+4MC8	1.4	0.0	0.3	0.83	0.00	0.68	16	0	3	10	0	2
O XYLENE	3.3	0.0	0.3	1.95	0.00	0.68	36	0	3	22	0	2
N NONANE	1.1	0.0	0.2	0.65	0.00	0.45	13	0	2	8	0	1
IPRBENZENE	0.9	0.0	0.1	0.53	0.00	0.23	10	0	1	6	0	1
NPRBENZENE	0.5	0.0	0.0	0.29	0.00	0.00	5	0	0	3	0	0
IM3ETBENZ	3.3	0.0	0.4	1.95	0.00	0.90	36	0	4	22	0	3
135MEBENZ	1.4	0.0	0.1	0.83	0.00	0.23	15	0	1	9	0	1
IM2ETBENZ	1.4	0.0	0.0	0.83	0.00	0.00	15	0	0	9	0	0
124MBENZ	4.7	0.0	0.6	2.77	0.00	1.36	51	0	6	32	0	4
SBUBENZENE	0.5	0.0	0.1	0.29	0.00	0.23	5	0	1	3	0	1
N DECANE	0.4	0.0	0.0	0.24	0.00	0.00	5	0	0	3	0	0
123MBENZ	1.3	0.0	0.1	0.77	0.00	0.23	14	0	1	9	0	1
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.2	0.0	0.0	0.12	0.00	0.00	2	0	0	1	0	0
IM3PRBENZ	0.4	0.0	0.0	0.24	0.00	0.00	4	0	0	3	0	0
UNKNOWNS	19.2	1.0	1.0	11.32	4.78	2.26	210	13	10	130	8	6

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130602
DATE RUN: 04 04 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 60

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	137.5	19.4	36.5
GC PPMC	135.7	17.4	26.8

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	13.3	7.7	6.2	9.80	44.25	23.13	173	130	98	107	81	61
SATURATES	61.2	7.4	15.3	45.10	42.53	57.09	712	112	216	442	70	134
OLEFINS	13.8	0.6	1.0	10.17	3.45	3.73	157	9	14	97	6	9
ACETYLENE	1.7	0.0	0.0	1.25	0.00	0.00	18	0	0	11	0	0
NAPTHENES	2.5	0.0	0.4	1.84	0.00	1.49	28	0	6	18	0	3
AROMATICS	35.2	1.6	2.9	25.94	9.20	10.82	375	22	38	233	14	23
BENZENE	5.0	0.5	0.7	3.68	2.87	2.61	53	7	9	33	4	6
TOLUENE	10.3	0.6	1.1	7.59	3.45	4.10	110	8	14	68	5	9
C8+AROM	19.9	0.5	1.1	14.66	2.87	4.10	216	7	14	134	4	9
UNKNOWN	8.0	0.1	1.0	0.00	0.00	0.00	87	1	13	54	1	8
INDIVIDUAL COMPONENTS												
METHANE	13.3	7.7	6.2	9.80	44.25	23.13	173	130	98	107	81	61
ETHYLENE	6.6	0.3	0.7	4.86	1.72	2.61	75	4	10	47	3	6
ETHANE	1.9	1.1	0.9	1.40	6.32	3.36	23	17	13	14	11	8
ACETYLENE	1.7	0.0	0.0	1.25	0.00	0.00	18	0	0	11	0	0
C3 + C3=	2.7	0.2	0.2	1.99	1.15	0.75	31	3	3	19	2	2
C=C=C	0.0	0.0	0.1	0.00	0.00	0.37	0	0	1	0	0	1
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.4	0.3	0.2	0.29	1.72	0.75	5	5	3	3	3	2
B1 + IB	1.0	0.0	0.0	0.74	0.00	0.00	11	0	0	7	0	0
NC4 +B=1=3	4.8	1.6	2.6	3.54	9.20	9.70	56	25	37	35	15	23
TBUTENE-2	0.4	0.0	0.0	0.29	0.00	0.00	5	0	0	3	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.3	0.0	0.0	0.22	0.00	0.00	3	0	0	2	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	4.9	0.9	1.9	3.61	5.17	7.09	57	14	27	36	9	17
PENTENE-1	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	1.1	0.2	0.3	0.81	1.15	1.12	13	3	4	8	2	3
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130602
DATE RUN: 04 04 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.4	0.0	0.0	0.29	0.00	0.00	5	0	0	3	0	0
CISPENT-2	0.2	0.0	0.0	0.15	0.00	0.00	2	0	0	1	0	0
2MBUT-2	0.8	0.0	0.0	0.59	0.00	0.00	9	0	0	6	0	0
22MBUTANL	0.2	0.1	0.2	0.15	0.57	0.75	2	2	3	1	1	2
CYPENTENE	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
23MBUTANE	1.2	0.1	0.3	0.86	0.57	1.12	14	2	4	9	1	3
2MPENTANE	2.5	0.3	0.5	1.84	1.72	1.87	29	5	7	18	3	4
3MPENTANE	1.5	0.1	0.5	1.11	0.57	1.87	17	2	7	11	1	4
HEXENE-1	0.2	0.0	0.0	0.15	0.00	0.00	2	0	0	1	0	0
N HEXANE	1.0	0.1	0.3	0.74	0.57	1.12	12	2	4	7	1	3
TC6=3,=2	0.7	0.0	0.0	0.52	0.00	0.00	8	0	0	5	0	0
CC6=3	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.0	0.1	0.0	0.00	0.57	0.00	0	1	0	0	1	0
MCYP43M2C5	1.3	0.0	0.2	0.96	0.00	0.75	15	0	3	9	0	2
24MPENTANE	2.5	0.2	0.5	1.84	1.15	1.87	29	3	7	18	2	4
BENZENE	5.0	0.5	0.7	3.68	2.87	2.61	53	7	9	33	4	6
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	5.8	0.4	1.0	4.27	2.30	3.73	67	6	14	42	4	9
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.0	0.1	0.3	1.47	0.57	1.12	23	2	4	14	1	3
224MPENTAN	12.5	1.1	3.0	9.21	6.32	11.19	145	17	42	90	10	26
NHEPTANE	1.8	0.1	0.5	1.33	0.57	1.87	21	2	7	13	1	4
MCYHEXANE	0.5	0.0	0.1	0.37	0.00	0.37	6	0	1	4	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	2.7	0.1	0.4	1.99	0.57	1.49	31	2	6	19	1	3
234MC5	3.1	0.2	0.5	2.28	1.15	1.87	36	3	7	22	2	4
TOLUENE	10.3	0.6	1.1	7.59	3.45	4.10	110	8	14	68	5	9
23MC6+4MC7	1.6	0.1	0.2	1.18	0.57	0.75	19	2	3	11	1	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130602
DATE RUN: 04 04 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.0	0.1	0.3	1.47	0.57	1.12	23	2	4	14	1	3
3MHEPTANE	1.8	0.1	0.2	1.33	0.57	0.75	21	2	3	13	1	2
255MC6	1.9	0.1	0.3	1.40	0.57	1.12	22	2	4	14	1	3
N OCTANE	1.1	0.0	0.1	0.81	0.00	0.37	13	0	1	8	0	1
223MC6	0.3	0.0	0.0	0.22	0.00	0.00	3	0	0	2	0	0
ETCYHEXANE	0.6	0.0	0.1	0.44	0.00	0.37	7	0	1	4	0	1
ET BENZENE	1.5	0.1	0.1	1.11	0.57	0.37	16	1	1	10	1	1
M+PXYLENE	6.2	0.3	0.4	4.57	1.72	1.49	67	4	5	41	3	3
2+4MC8	1.3	0.0	0.2	0.96	0.00	0.75	15	0	3	9	0	2
O XYLENE	2.5	0.1	0.1	1.84	0.57	0.37	27	1	1	17	1	1
N NONANE	1.0	0.0	0.1	0.74	0.00	0.37	12	0	1	7	0	1
IPRBENZENE	0.9	0.0	0.1	0.66	0.00	0.37	10	0	1	6	0	1
NPRBENZENE	0.3	0.0	0.0	0.22	0.00	0.00	3	0	0	2	0	0
1M3ETBENZ	2.0	0.0	0.1	1.47	0.00	0.37	22	0	1	13	0	1
135MEBENZ	0.8	0.0	0.3	0.59	0.00	1.12	9	0	4	5	0	2
1M2ETBENZ	1.3	0.0	0.0	0.96	0.00	0.00	14	0	0	9	0	0
124MBENZ	2.5	0.0	0.0	1.84	0.00	0.00	27	0	0	17	0	0
SBUBENZENE	0.3	0.0	0.0	0.22	0.00	0.00	3	0	0	2	0	0
N DECANE	0.3	0.0	0.0	0.22	0.00	0.00	3	0	0	2	0	0
123MBENZ	0.7	0.0	0.0	0.52	0.00	0.00	8	0	0	5	0	0
INDANE	0.4	0.0	0.0	0.29	0.00	0.00	4	0	0	3	0	0
13EBENZENE	0.1	0.0	0.0	0.07	0.00	0.00	1	0	0	1	0	0
NBUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1M3PRBENZ	0.4	0.0	0.0	0.29	0.00	0.00	4	0	0	3	0	0
UNKNOWNS	8.0	0.1	1.0	5.90	0.57	3.73	87	1	13	54	1	8

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO=: 130701
DATE RUN: 03 23 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVEN: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FLDERAL TEST PROCEDURE

TEST TEMPERATURE = 70

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	110.6	19.2	31.8
GC PPMC	159.1	18.0	27.2

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	13.7	6.8	5.3	8.61	37.78	19.49	116	95	67	72	59	42
SATURATES	48.6	6.7	14.1	30.55	37.22	51.84	368	84	160	228	52	100
OLEFINS	11.5	0.5	0.6	7.23	2.78	2.21	85	6	7	53	4	4
ACETYLENE	2.2	0.0	0.0	1.38	0.00	0.00	15	0	0	9	0	0
NAPTHENES	1.8	0.1	0.2	1.13	0.56	0.74	13	1	2	8	1	1
AROMATICS	66.1	1.7	5.7	41.55	9.44	20.96	458	20	59	285	12	37
BENZENE	4.9	0.2	0.6	3.08	1.11	2.21	34	2	6	21	1	4
TOLUENE	12.2	0.3	1.1	7.67	1.67	4.04	85	3	11	53	2	7
C8+ARON	49.0	1.2	4.0	30.80	6.67	14.71	345	14	42	215	9	26
UNKNOWN	15.2	2.2	1.3	0.00	0.00	0.00	107	26	14	67	16	9
INDIVIDUAL COMPONENTS												
METHANE	13.7	6.8	5.3	8.61	37.78	19.49	116	95	67	72	59	42
ETHYLENE	6.0	0.2	0.4	3.77	1.11	1.47	44	2	4	28	2	3
ETHANE	1.8	0.7	0.8	1.13	3.89	2.94	14	9	10	9	6	6
ACETYLENE	2.2	0.0	0.0	1.38	0.00	0.00	15	0	0	9	0	0
C3 + C3=	2.4	0.0	0.1	1.51	0.00	0.37	18	0	1	11	0	1
C=C=C	0.0	0.0	0.1	0.00	0.00	0.37	0	0	1	0	0	1
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.8	0.3	0.5	0.50	1.67	1.84	6	4	6	4	2	4
B1 + IB	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NC4 +B=1=3	6.2	2.0	3.5	3.90	11.11	12.87	47	25	40	29	16	25
TBUTENE-2	0.4	0.0	0.0	0.25	0.00	0.00	3	0	0	2	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.3	0.0	0.0	0.19	0.00	0.00	2	0	0	1	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	0	0	0
ISOPENTANE	3.8	0.8	1.7	2.39	4.44	6.25	29	10	19	18	6	12
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	0	0	0
NPENTANE	0.9	0.3	0.5	0.57	1.67	1.84	7	4	6	4	2	4
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130701
DATE RUN: 03 23 79
CAR: DATSUN PROTOTYPE VIN: KMLA10-004508 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	0.2	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
CISPENT-2	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	0	0	0
2MBUT-2	0.5	0.3	0.0	0.31	1.67	0.00	4	4	0	2	2	0
22MBUTANE	0.3	0.0	0.4	0.19	0.00	1.47	2	0	5	1	0	3
CYPENTENE	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	0	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	0	0	0
23MBUTANE	0.7	0.1	0.2	0.44	0.56	0.74	5	1	2	3	1	1
2MPENTANE	1.5	0.3	0.4	0.94	1.67	1.47	11	4	5	7	2	3
3MPENTANE	2.0	0.3	0.6	1.26	1.67	2.21	15	4	7	9	2	4
HEXENE-1	0.5	0.0	0.0	0.31	0.00	0.00	4	0	0	2	0	0
N HEXANE	0.8	0.1	0.2	0.50	0.56	0.74	6	1	2	4	1	1
TC6=3,=2	0.6	0.0	0.0	0.38	0.00	0.00	4	0	0	3	0	0
CC6=3	0.2	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	0.9	0.1	0.2	0.57	0.56	0.74	7	1	2	4	1	1
24MPENTANE	2.1	0.1	0.4	1.32	0.56	1.47	16	1	5	10	1	3
BENZENE	4.9	0.2	0.6	3.08	1.11	2.21	34	2	6	21	1	4
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	3.8	0.2	0.7	2.39	1.11	2.57	29	3	8	18	2	5
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.3	0.1	0.2	0.82	0.56	0.74	10	1	2	6	1	1
224MPENTAN	8.3	0.6	2.1	5.22	3.33	7.72	62	7	24	39	5	15
NHEPTANE	1.1	0.1	0.2	0.69	0.56	0.74	8	1	2	5	1	1
MCYHEXANE	0.4	0.0	0.0	0.25	0.00	0.00	3	0	0	2	0	0
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.8	0.1	0.3	1.13	0.56	1.10	14	1	3	8	1	2
234MC5	2.1	0.1	0.3	1.32	0.56	1.10	16	1	3	10	1	2
TOLUENE	12.2	0.3	1.1	7.67	1.67	4.04	85	3	11	53	2	7
23MC6+4MC7	1.4	0.1	0.2	0.88	0.56	0.74	11	1	2	7	1	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130701
DATE RUN: 03 23 79
CAR: DATSUN PROTOTYPE VIN: KMLA10-004508 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.5	0.1	0.2	0.94	0.56	0.74	11	1	2	7	1	1
3MHEPTANE	1.3	0.1	0.2	0.82	0.56	0.74	10	1	2	6	1	1
255MC6	1.4	0.1	0.2	0.88	0.56	0.74	11	1	2	7	1	1
N OCTANE	0.8	0.0	0.1	0.50	0.00	0.37	6	0	1	4	0	1
223MC6	0.2	0.0	0.0	0.13	0.00	0.00	2	0	0	1	0	0
ETCYHEXANE	0.4	0.0	0.0	0.25	0.00	0.00	3	0	0	2	0	0
ET BENZENE	2.7	0.1	0.2	1.70	0.56	0.74	19	1	2	12	1	1
M+PXYLENE	14.5	0.3	1.2	9.11	1.67	4.41	101	3	13	63	2	8
2+4MC8	1.4	0.0	0.0	0.88	0.00	0.00	11	0	0	7	0	0
O XYLENE	5.6	0.1	0.4	3.52	0.56	1.47	39	1	4	24	1	3
N NONANE	1.2	0.1	0.2	0.75	0.56	0.74	9	1	2	6	1	1
IPRBENZENE	0.8	0.0	0.1	0.50	0.00	0.37	6	0	1	3	0	1
NPRBENZENE	0.7	0.0	0.0	0.44	0.00	0.00	5	0	0	3	0	0
1M3ETBENZ	6.1	0.2	0.4	3.83	1.11	1.47	43	2	4	27	1	3
135MEBENZ	2.4	0.0	0.2	1.51	0.00	0.74	17	0	2	10	0	1
1M2ETBENZ	1.0	0.0	0.3	0.63	0.00	1.10	7	0	3	4	0	2
124MBENZ	9.2	0.3	0.9	5.78	1.67	3.31	65	4	10	40	2	6
SBUBENZENE	0.2	0.1	0.1	0.13	0.56	0.37	1	1	1	1	1	1
N DECANE	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	0	0	0
123MBENZ	2.4	0.1	0.2	1.51	0.56	0.74	17	1	2	10	1	1
INDANE	1.8	0.0	0.0	1.13	0.00	0.00	12	0	0	8	0	0
13EBENZENE	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	0	0	0
NBUBENZENE	0.4	0.0	0.0	0.25	0.00	0.00	3	0	0	2	0	0
1M3PRBENZ	1.1	0.0	0.0	0.69	0.00	0.00	8	0	0	5	0	0
UNKNOWNS	15.2	2.2	1.3	9.55	12.22	4.78	107	26	14	67	16	9

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130702
DATE RUN: 04 03 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 70

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	113.1	14.7	26.8
GC PPMC	107.9	12.4	25.2

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	10.4	5.9	6.7	9.64	47.58	26.59						
SATURATES	46.5	5.4	14.6	43.10	43.55	57.94	140	114	84	87	71	52
OLEFINS	9.5	0.3	1.0	6.80	2.42	3.97	562	93	164	349	58	102
ACETYLENE	1.3	0.0	0.0	1.20	0.00	0.00	112	5	11	70	3	7
NAPTHENES	1.8	0.0	0.3	1.67	0.00	1.19	14	0	0	9	0	0
							21	0	3	13	0	2
AROMATICS	29.2	0.5	2.4	27.06	4.03	9.52	324	8	25	201	5	15
BENZENE	3.5	0.2	0.6	3.24	1.61	2.38	38	3	6	24	2	4
TOLUENE	7.6	0.3	0.9	7.04	2.42	3.57	84	5	9	52	3	6
C8+ARUM	18.1	0.0	0.9	16.77	0.00	3.57	204	0	9	127	0	6
UNKNOWN	9.2	0.3	0.2	0.00	0.00	0.00	104	5	2	65	3	1
INDIVIDUAL COMPONENTS												
METHANE	10.4	5.9	6.7	9.64	47.58	26.59	140	114	84	87	71	52
ETHYLENE	4.7	0.2	0.6	4.36	1.61	2.38	55	3	7	34	2	4
ETHANE	1.5	0.9	1.1	1.39	7.26	4.37	19	16	13	12	10	8
ACETYLENE	1.3	0.0	0.0	1.20	0.00	0.00	14	0	0	9	0	0
C3 + C3=	2.1	0.0	0.2	1.95	0.00	0.79	25	0	2	15	0	1
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.4	0.1	0.3	0.37	0.81	1.19	5	2	3	3	1	2
B1 + I6	0.7	0.0	0.0	0.65	0.00	0.00	8	0	0	5	0	0
NC4 +B=1=3	3.8	1.2	2.9	3.52	9.68	11.51	46	21	33	29	13	21
TBUTENE-2	0.3	0.0	0.0	0.28	0.00	0.00	4	0	0	2	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOPENTANE	3.2	0.6	1.9	2.97	4.84	7.54	39	10	21	24	6	13
PENTENE-1	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	0.8	0.1	0.3	0.74	0.81	1.19	10	2	3	6	1	2
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130702
DATE RUN: 04 03 79
CAR: DATSUN PROTOTYPE VIN: KMLA10-004508 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	0.2	0.0	0.0	0.19	0.00	0.00	2	0	0	1	0	0
CISPENT-2	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.4	0.0	0.0	0.37	0.00	0.00	5	0	0	3	0	0
22MBUTANE	0.2	0.4	0.5	0.19	3.23	1.98	2	7	6	2	4	3
CYPENTENE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
23MBUTANE	0.7	0.1	0.2	0.65	0.81	0.79	8	2	2	5	1	1
2MPENTANE	1.4	0.1	0.5	1.30	0.81	1.98	17	2	6	11	1	3
3MPENTANE	1.0	0.1	0.4	0.93	0.81	1.59	12	2	4	8	1	3
MEXENE-1	0.2	0.0	0.2	0.19	0.00	0.79	2	0	2	1	0	1
N HEXANE	0.7	0.0	0.0	0.65	0.00	0.00	8	0	0	5	0	0
TC6=3,=2	0.4	0.0	0.0	0.37	0.00	0.00	5	0	0	3	0	0
CC6=3	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.0	0.1	0.0	0.00	0.81	0.00	0	2	0	0	1	0
MCYP43M2C5	0.8	0.0	0.2	0.74	0.00	0.79	9	0	2	6	0	1
24MPENTANE	1.7	0.1	0.4	1.58	0.81	1.59	20	2	4	13	1	3
BENZENE	3.5	0.2	0.6	3.24	1.61	2.38	38	3	6	24	2	4
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	4.1	0.2	0.9	3.80	1.61	3.57	49	3	10	31	2	6
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.4	0.1	0.3	1.30	0.81	1.19	17	2	3	10	1	2
224MPENTAN	9.6	0.8	2.7	8.90	6.45	10.71	115	14	30	72	9	19
NHEPTANE	1.3	0.0	0.2	1.20	0.00	0.79	16	0	2	10	0	1
MCYHEXANE	0.4	0.0	0.0	0.37	0.00	0.00	5	0	0	3	0	0
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	2.2	0.1	0.4	2.04	0.81	1.59	26	2	4	16	1	3
234MC5	2.6	0.1	0.4	2.41	0.81	1.59	31	2	4	19	1	3
TOLUENE	7.6	0.3	0.9	7.04	2.42	3.57	84	5	9	52	3	6
23MC6+4MC7	1.4	0.1	0.2	1.30	0.81	0.79	17	2	2	10	1	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130702
DATE RUN: 04 03 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: MYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.7	0.1	0.2	1.58	0.81	0.79	20	2	2	13	1	1
3MHEPTANE	1.6	0.1	0.2	1.48	0.81	0.79	19	2	2	12	1	1
255MC6	1.7	0.1	0.2	1.58	0.81	0.79	20	2	2	13	1	1
N OCTANE	1.0	0.0	0.1	0.93	0.00	0.40	12	0	1	7	0	1
223MC6	0.2	0.0	0.0	0.19	0.00	0.00	2	0	0	1	0	0
ETCYHEXANE	0.5	0.0	0.1	0.46	0.00	0.40	6	0	1	4	0	1
ET BENZENE	1.2	0.0	0.1	1.11	0.00	0.40	13	0	1	8	0	1
M+PXYLENE	5.2	0.0	0.3	4.82	0.00	1.19	58	0	3	36	0	2
2+4MC8	1.2	0.0	0.2	1.11	0.00	0.79	14	0	2	9	0	1
O XYLENE	2.2	0.0	0.1	2.04	0.00	0.40	25	0	1	15	0	1
N NONANE	0.9	0.0	0.1	0.83	0.00	0.40	11	0	1	7	0	1
IPRBENZENE	0.8	0.0	0.1	0.74	0.00	0.40	9	0	1	6	0	1
NPRBENZENE	0.3	0.0	0.0	0.28	0.00	0.00	3	0	0	2	0	0
1M3ETBENZ	1.9	0.0	0.1	1.76	0.00	0.40	21	0	1	13	0	1
135MEBENZ	0.8	0.0	0.2	0.74	0.00	0.79	9	0	2	6	0	1
1M2ETBENZ	1.2	0.0	0.0	1.11	0.00	0.00	13	0	0	8	0	0
124MBENZ	2.6	0.0	0.0	2.41	0.00	0.00	29	0	0	18	0	0
SBUBENZENE	0.2	0.0	0.0	0.19	0.00	0.00	2	0	0	1	0	0
N DECANE	0.2	0.0	0.0	0.19	0.00	0.00	2	0	0	1	0	0
123MBENZ	0.7	0.0	0.0	0.65	0.00	0.00	8	0	0	5	0	0
INDANE	0.5	0.0	0.0	0.46	0.00	0.00	6	0	0	3	0	0
13EBENZENE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
NBUBENZENE	0.1	0.0	0.0	0.09	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.3	0.0	0.0	0.28	0.00	0.00	3	0	0	2	0	0
UNKNOWNS	9.2	0.3	0.2	8.53	2.42	0.79	104	5	2	65	3	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130601
DATE RUN: 03 26 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	85.2	14.7	27.3
GC PPMC	81.6	12.5	24.6

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
MAJOR COMPONENTS												
METHANE	9.1	5.7	6.4	11.15	45.60	26.02	121	106	85	75	66	53
SATURATES	34.0	5.8	13.8	41.67	46.40	56.10	406	97	163	252	60	102
OLEFINS	7.1	0.2	0.7	8.70	1.60	2.85	83	3	8	51	2	5
ACETYLENE	1.0	0.0	0.0	1.23	0.00	0.00	11	0	0	7	0	0
NAPTHENES	1.2	0.1	0.1	1.47	0.80	0.41	14	2	1	9	1	1
AROMATICS	22.6	0.7	3.2	27.70	5.60	13.01	248	11	35	154	7	22
BENZENE	2.6	0.3	0.7	3.19	2.40	2.85	28	5	8	17	3	5
TOLUENE	5.1	0.3	0.9	6.25	2.40	3.66	56	5	10	35	3	6
C8+AROM	14.9	0.1	1.6	18.26	0.80	6.50	166	2	18	103	1	11
UNKNOWN	6.6	0.0	0.4	0.00	0.00	0.00	74	0	4	46	0	3
INDIVIDUAL COMPONENTS												
METHANE	9.1	5.7	6.4	11.15	45.60	26.02	121	106	85	75	66	53
ETHYLENE	3.6	0.2	0.5	4.41	1.60	2.03	42	3	6	26	2	4
ETHANE	1.4	0.6	0.9	1.72	4.80	3.66	18	10	11	11	7	7
ACETYLENE	1.0	0.0	0.0	1.23	0.00	0.00	11	0	0	7	0	0
C3 + C3=	1.7	0.0	0.2	2.08	0.00	0.81	20	0	2	12	0	1
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.6	0.2	0.5	0.74	1.60	2.03	7	3	6	5	2	4
B1 + 1B	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NC4 +B=1=3	4.6	1.5	3.6	5.64	12.00	14.63	56	25	43	35	16	27
TBUTENE-2	0.3	0.0	0.0	0.37	0.00	0.00	4	0	0	2	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.0	0.25	0.00	0.00	2	0	0	1	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	2.8	0.6	1.8	3.43	4.80	7.32	34	10	21	21	6	13
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	0.7	0.2	0.3	0.86	1.60	1.22	8	3	4	5	2	2
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130861
DATE RUN: 03 26 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: MYER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
CISPENT-2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-2	0.4	0.0	0.0	0.49	0.00	0.00	5	0	0	3	0	0
22MBUTANE	0.1	0.9	0.4	0.12	7.20	1.63	1	15	5	1	9	3
CYPENTENE	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
23MBUTANE	0.5	0.1	0.2	0.61	0.80	0.81	6	2	2	4	1	1
2MPENTANE	1.1	0.1	0.4	1.35	0.80	1.63	13	2	5	8	1	3
3MPENTANE	1.0	0.1	0.3	1.23	0.80	1.22	12	2	4	7	1	2
HEXENE-1	0.2	0.0	0.0	0.25	0.00	0.00	2	0	0	1	0	0
N HEXANE	0.5	0.0	0.1	0.61	0.00	0.41	6	0	1	4	0	1
TC6=3=2	0.4	0.0	0.0	0.49	0.00	0.00	5	0	0	3	0	0
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	0.6	0.1	0.1	0.74	0.80	0.41	7	2	1	4	1	1
24MPENTANE	1.2	0.1	0.3	1.47	0.80	1.22	14	2	4	9	1	2
BENZENE	2.6	0.3	0.7	3.19	2.40	2.85	28	5	8	17	3	5
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	2.6	0.2	0.7	3.19	1.60	2.85	31	3	8	19	2	5
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.9	0.1	0.2	1.10	0.80	0.81	11	2	2	7	1	1
224MPENTAN	6.2	0.6	2.0	7.60	4.80	8.13	74	10	24	46	6	15
NHEPTANE	0.8	0.0	0.2	0.98	0.00	0.81	10	0	2	6	0	1
MCYHEXANE	0.2	0.0	0.0	0.25	0.00	0.00	2	0	0	1	0	0
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.4	0.1	0.3	1.72	0.80	1.22	17	2	4	10	1	2
234MC5	1.5	0.1	0.3	1.84	0.80	1.22	18	2	4	11	1	2
TOLUENE	5.1	0.3	0.9	6.25	2.40	3.66	56	5	10	35	3	6
23MC6+4MC7	0.9	0.1	0.2	1.10	0.80	0.81	11	2	2	7	1	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130801
DATE RUN: 03 26 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	1.0	0.1	0.2	1.23	0.80	0.81	12	2	2	7	1	1
3MHEPTANE	0.9	0.0	0.2	1.10	0.00	0.81	11	0	2	7	0	1
255MC6	1.0	0.1	0.2	1.23	0.80	0.81	12	2	2	7	1	1
N OCTANE	0.5	0.0	0.1	0.61	0.00	0.41	6	0	1	4	0	1
223MC6	0.2	0.0	0.0	0.25	0.00	0.00	2	0	0	1	0	0
ETCYHEXANE	0.3	0.0	0.0	0.37	0.00	0.00	4	0	0	2	0	0
ET BENZENE	0.9	0.0	0.1	1.10	0.00	0.41	10	0	1	6	0	1
M+PXYLENE	4.0	0.1	0.4	4.90	0.80	1.63	44	2	4	27	1	3
244MC8	0.8	0.0	0.2	0.98	0.00	0.81	9	0	2	6	0	1
O XYLENE	1.7	0.0	0.1	2.08	0.00	0.41	19	0	1	12	0	1
N NONANE	0.7	0.0	0.2	0.86	0.00	0.81	8	0	2	5	0	1
IPRBENZENE	0.5	0.0	0.1	0.61	0.00	0.41	6	0	1	3	0	1
NPRBENZENE	0.2	0.0	0.0	0.25	0.00	0.00	2	0	0	1	0	0
1M3ETBENZ	1.7	0.0	0.2	2.08	0.00	0.81	19	0	2	12	0	1
135MEBENZ	0.7	0.0	0.3	0.86	0.00	1.22	8	0	3	5	0	2
1M2ETBENZ	0.8	0.0	0.1	0.98	0.00	0.41	9	0	1	6	0	1
124MBENZ	2.5	0.0	0.2	3.06	0.00	0.81	28	0	2	17	0	1
SBUBENZENE	0.2	0.0	0.1	0.25	0.00	0.41	2	0	1	1	0	1
N DECANE	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.7	0.0	0.0	0.86	0.00	0.00	8	0	0	5	0	0
INDANE	0.5	0.0	0.0	0.61	0.00	0.00	5	0	0	3	0	0
1JEBENZENE	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
NBUBENZENE	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.3	0.0	0.0	0.37	0.00	0.00	3	0	0	2	0	0
UNKNOWNS	6.6	0.0	0.4	8.09	0.00	1.63	74	0	4	46	0	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130802
DATE RUN: 04 02 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	97.7	15.4	30.4
GC PPMC	81.9	11.1	22.0

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
MAJOR COMPONENTS												
METHANE	9.4	4.9	5.8	11.48	44.14	26.36	143	109	95	89	68	59
SATURATES	34.9	4.8	12.0	42.61	43.24	54.55	476	95	176	296	59	109
OLEFINS	7.9	0.5	0.8	9.65	4.50	3.64	105	10	11	65	6	7
ACETYLENE	0.8	0.0	0.0	0.98	0.00	0.00	10	0	0	6	0	0
NAPTHENES	1.4	0.1	0.4	1.71	0.90	1.82	19	2	6	12	1	4
AROMATICS	22.2	0.8	3.0	27.11	7.21	13.64	278	15	40	173	9	25
BENZENE	3.3	0.3	0.8	4.03	2.70	3.64	41	5	11	25	3	7
TOLUENE	6.0	0.3	0.9	7.33	2.70	4.09	75	5	12	47	3	8
C8+AROM	12.9	0.2	1.3	15.75	1.80	5.91	164	4	18	102	2	11
UNKNOWN	5.3	0.0	0.0	0.00	0.00	0.00	68	0	0	42	0	0
INDIVIDUAL COMPONENTS												
METHANE	9.4	4.9	5.8	11.48	44.14	26.36	143	109	95	89	68	59
ETHYLENE	3.9	0.2	0.5	4.76	1.80	2.27	52	4	7	32	2	4
ETHANE	1.3	0.5	0.7	1.59	4.50	3.18	19	10	11	12	6	7
ACETYLENE	0.8	0.0	0.0	0.98	0.00	0.00	10	0	0	6	0	0
C3 + C3=	1.7	0.0	0.2	2.08	0.00	0.91	23	0	3	14	0	2
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.4	0.2	0.3	0.49	1.80	1.36	6	4	4	3	2	3
B1 + TB	0.5	0.0	0.0	0.61	0.00	0.00	7	0	0	4	0	0
NC4 +B=1=3	3.3	1.0	2.4	4.03	9.01	10.91	46	20	36	28	12	22
TBUTENE-2	0.3	0.0	0.0	0.37	0.00	0.00	4	0	0	2	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.0	0.24	0.00	0.00	3	0	0	2	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	2.7	0.5	1.5	3.30	4.50	6.82	37	10	22	23	6	14
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	0.6	0.1	0.3	0.73	0.90	1.36	8	2	4	5	1	3
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130802
DATE RUN: 04 02 79
CAR: DATSUN PROTOTYPE VIN: KNLA10-004508 DRIVER: MYER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.2	0.0	0.0	0.24	0.00	0.00	3	0	0	2	0	0
CISPENT-2	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.4	0.0	0.1	0.49	0.00	0.45	5	0	1	3	0	1
22MBUTANE	0.1	0.2	0.3	0.12	1.80	1.36	1	4	4	1	2	3
CYPENTENE	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.0	0.1	0.0	0.00	0.90	0.00	0	2	0	0	1	0
CYPENTANE	0.1	0.1	0.0	0.12	0.90	0.00	1	2	0	1	1	0
23MBUTANE	0.6	0.1	0.2	0.73	0.90	0.91	8	2	3	5	1	2
2MPENTANE	1.4	0.4	0.4	1.71	3.60	1.82	19	8	6	12	5	4
3MPENTANE	0.7	0.1	0.3	0.85	0.90	1.36	10	2	4	6	1	3
HEXENE-1	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
N HEXANE	0.5	0.1	0.2	0.61	0.90	0.91	7	2	3	4	1	2
TC6=3,=2	0.3	0.1	0.0	0.37	0.90	0.00	4	2	0	2	1	0
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.0	0.1	0.0	0.00	0.90	0.00	0	2	0	0	1	0
MCYP43M2C5	0.6	0.0	0.2	0.73	0.00	0.91	8	0	3	5	0	2
24MPENTANE	1.3	0.1	0.4	1.59	0.90	1.82	18	2	6	11	1	4
BENZENE	3.3	0.3	0.8	4.03	2.70	3.64	41	5	11	25	3	7
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	3.1	0.2	0.8	3.79	1.80	3.64	42	4	12	26	2	7
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.1	0.1	0.2	1.34	0.90	0.91	15	2	3	9	1	2
224MPENTAN	7.0	0.6	2.1	8.55	5.41	9.55	95	12	31	59	7	19
NHEPTANE	0.9	0.1	0.2	1.10	0.90	0.91	12	2	3	8	1	2
MCYHEXANE	0.3	0.0	0.1	0.37	0.00	0.45	4	0	1	2	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.5	0.1	0.3	1.83	0.90	1.36	20	2	4	13	1	3
234MC5	1.7	0.1	0.3	2.08	0.90	1.36	23	2	4	14	1	3
TOLUENE	6.0	0.3	0.9	7.33	2.70	4.09	75	5	12	47	3	8
23MC6+4MC7	1.0	0.1	0.2	1.22	0.90	0.91	14	2	3	8	1	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130802
DATE RUN: 04 02 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: MYER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	1.1	0.1	0.2	1.34	0.90	0.91	15	2	3	9	1	2
3MHEPTANE	1.0	0.1	0.2	1.22	0.90	0.91	14	2	3	8	1	2
255MC6	1.1	0.0	0.2	1.34	0.00	0.91	15	0	3	9	0	2
N OCTANE	0.7	0.0	0.1	0.85	0.00	0.45	9	0	1	6	0	1
223MC6	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.4	0.0	0.1	0.49	0.00	0.45	5	0	1	3	0	1
ET BENZENE	1.0	0.0	0.1	1.22	0.00	0.45	13	0	1	8	0	1
M+PXYLENE	4.1	0.2	0.4	5.01	1.80	1.82	52	4	5	32	2	3
244MC8	0.9	0.0	0.1	1.10	0.00	0.45	12	0	1	8	0	1
O XYLENE	1.6	0.0	0.2	1.95	0.00	0.91	20	0	3	13	0	2
N NONANE	0.7	0.0	0.1	0.85	0.00	0.45	9	0	1	6	0	1
IPRBENZENE	0.6	0.0	0.1	0.73	0.00	0.45	8	0	1	5	0	1
NPRBENZENE	0.2	0.0	0.0	0.24	0.00	0.00	3	0	0	2	0	0
1M3ETBENZ	1.3	0.0	0.1	1.59	0.00	0.45	16	0	1	10	0	1
135MEBENZ	0.6	0.0	0.2	0.73	0.00	0.91	8	0	3	5	0	2
1M2ETBENZ	0.8	0.0	0.1	0.98	0.00	0.45	10	0	1	6	0	1
124MBENZ	1.8	0.0	0.1	2.20	0.00	0.45	23	0	1	14	0	1
SBUBENZENE	0.2	0.0	0.0	0.24	0.00	0.00	3	0	0	2	0	0
N DECANE	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.5	0.0	0.0	0.61	0.00	0.00	6	0	0	4	0	0
INDANE	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
13EBENZENE	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
NBUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1M3PRBENZ	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
UNKNOWNS	5.3	0.0	0.0	6.47	0.00	0.00	68	0	0	42	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130901
DATE RUN: 03 27 79
CAR: DATSUN PROTOTYPE VIN: KNLA10-004508 DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	71.2	14.3	24.6
GC PPMC	78.8	9.8	18.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	8.8	4.2	5.1	11.17	42.86	27.87	101	99	81	62	61	51
SATURATES	31.2	3.9	9.8	39.59	39.80	53.55	319	82	140	198	51	87
OLEFINS	7.1	0.1	0.4	9.01	1.02	2.19	71	2	6	44	1	3
ACETYLENE	0.8	0.0	0.0	1.02	0.00	0.00	7	0	0	5	0	0
NAPTHENES	1.1	0.0	0.1	1.40	0.00	0.55	11	0	1	7	0	1
AROMATICS	23.1	0.7	2.8	29.31	7.14	15.30	217	14	37	135	8	23
BENZENE	2.5	0.2	0.7	3.17	2.04	3.83	23	4	9	14	2	6
TOLUENE	4.9	0.3	0.7	6.22	3.06	3.83	46	6	9	29	4	6
C8+AROM	15.7	0.2	1.4	19.92	2.04	7.65	150	4	19	93	2	12
UNKNOWN	6.7	0.9	0.1	0.00	0.00	0.00	64	18	1	40	11	1
INDIVIDUAL COMPONENTS												
METHANE	8.8	4.2	5.1	11.17	42.86	27.87	101	99	81	62	61	51
ETHYLENE	3.5	0.1	0.4	4.44	1.02	2.19	35	2	6	22	1	3
ETHANE	1.5	0.4	0.6	1.90	4.08	3.28	16	9	9	10	5	6
ACETYLENE	0.8	0.0	0.0	1.02	0.00	0.00	7	0	0	5	0	0
C3 + C3=	1.7	0.0	0.0	2.16	0.00	0.00	17	0	0	11	0	0
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.5	0.1	0.3	0.63	1.02	1.64	5	2	4	3	1	3
B1 + IB	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NC4 +B=1=3	4.4	0.9	2.2	5.58	9.18	12.02	46	19	32	28	12	20
TBUTENE-2	0.3	0.0	0.0	0.38	0.00	0.00	3	0	0	2	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.0	0.25	0.00	0.00	2	0	0	1	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	2.7	0.5	1.2	3.43	5.10	6.56	28	11	17	17	7	11
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	0.6	0.1	0.2	0.76	1.02	1.09	6	2	3	4	1	2
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130901
DATE RUN: 03 27 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004506 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.2	0.0	0.0	0.25	0.00	0.00	2	0	0	1	0	0
CISPENT-2	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.3	0.0	0.0	0.38	0.00	0.00	3	0	0	2	0	0
22MBUTANE	0.2	0.2	0.7	0.25	2.04	3.83	2	4	10	1	3	6
CYPENTENE	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
23MBUTANE	0.5	0.1	0.1	0.63	1.02	0.55	5	2	1	3	1	1
2MPENTANE	1.0	0.1	0.3	1.27	1.02	1.64	10	2	4	6	1	3
3MPENTANE	0.8	0.1	0.3	1.02	1.02	1.64	8	2	4	5	1	3
HEXENE-1	0.2	0.0	0.0	0.25	0.00	0.00	2	0	0	1	0	0
N HEXANE	0.5	0.1	0.1	0.63	1.02	0.55	5	2	1	3	1	1
TC6=3,=2	0.3	0.0	0.0	0.38	0.00	0.00	3	0	0	2	0	0
CC6=3	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	0.5	0.0	0.1	0.63	0.00	0.55	5	0	1	3	0	1
24MPENTANE	1.2	0.1	0.3	1.52	1.02	1.64	12	2	4	8	1	3
BENZENE	2.5	0.2	0.7	3.17	2.04	3.83	23	4	9	14	2	6
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	2.4	0.2	0.5	3.05	2.04	2.73	24	4	7	15	3	4
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.8	0.1	0.2	1.02	1.02	1.09	8	2	3	5	1	2
224MPENTAN	5.6	0.5	1.4	7.11	5.10	7.65	57	10	20	35	6	12
NHEPTANE	0.7	0.0	0.1	0.89	0.00	0.56	7	0	1	4	0	1
MCYHEXANE	0.2	0.0	0.0	0.25	0.00	0.00	2	0	0	1	0	0
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.1	0.1	0.2	1.40	1.02	1.09	11	2	3	7	1	2
234MC5	1.3	0.1	0.2	1.65	1.02	1.09	13	2	3	8	1	2
TOLUENE	4.9	0.3	0.7	6.22	3.06	3.83	46	6	9	29	4	6
23MC6+4MC7	0.8	0.1	0.2	1.02	1.02	1.09	8	2	3	5	1	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130901
DATE RUN: 03 27 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004506 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	0.9	0.1	0.2	1.14	1.02	1.09	9	2	3	6	1	2
3MHEPTANE	0.7	0.0	0.1	0.89	0.00	0.55	7	0	1	4	0	1
255MC6	0.8	0.0	0.1	1.02	0.00	0.55	8	0	1	5	0	1
N OCTANE	0.5	0.0	0.1	0.63	0.00	0.55	5	0	1	3	0	1
223MC6	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.3	0.0	0.0	0.38	0.00	0.00	3	0	0	2	0	0
ET BENZENE	0.9	0.0	0.1	1.14	0.00	0.55	9	0	1	5	0	1
M+PXYLENE	4.4	0.2	0.4	5.58	2.04	2.19	42	4	5	26	2	3
2+4MC8	0.8	0.0	0.1	1.02	0.00	0.55	8	0	1	5	0	1
O XYLENE	1.8	0.0	0.1	2.28	0.00	0.55	17	0	1	11	0	1
N NONANE	0.6	0.0	0.1	0.76	0.00	0.55	6	0	1	4	0	1
IPRBENZENE	0.5	0.0	0.1	0.63	0.00	0.55	5	0	1	3	0	1
NPRBENZENE	0.2	0.0	0.0	0.25	0.00	0.00	2	0	0	1	0	0
1M3ETBENZ	1.8	0.0	0.1	2.28	0.00	0.55	17	0	1	11	0	1
135MEBENZ	0.7	0.0	0.2	0.89	0.00	1.09	7	0	3	4	0	2
1M2ETBENZ	0.8	0.0	0.0	1.02	0.00	0.00	6	0	0	5	0	0
124MBENZ	3.0	0.0	0.3	3.81	0.00	1.64	29	0	4	18	0	2
SBUBENZENE	0.2	0.0	0.1	0.25	0.00	0.55	2	0	1	1	0	1
N DECANE	0.2	0.0	0.0	0.25	0.00	0.00	2	0	0	1	0	0
123MBENZ	0.9	0.0	0.0	1.14	0.00	0.00	9	0	0	5	0	0
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
NBUBENZENE	0.1	0.0	0.0	0.13	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.3	0.0	0.0	0.38	0.00	0.00	3	0	0	2	0	0
UNKNOWNS	6.7	0.9	0.1	8.50	9.18	0.55	64	18	1	40	11	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130902
DATE RUN: 03 30 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	73.0	16.8	27.7
GC PPMC	95.2	14.6	25.7

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
MAJOR COMPONENTS												
METHANE	10.5	7.6	8.7	11.03	52.05	33.85	99	122	101	62	76	63
SATURATES	30.7	5.6	12.9	32.25	38.36	50.19	260	81	134	161	50	84
OLEFINS	6.7	0.4	0.7	7.04	2.74	2.72	55	6	7	34	4	4
ACETYLENE	0.7	0.0	0.0	0.74	0.00	0.00	5	0	0	3	0	0
NAPTHENES	1.2	0.2	0.1	1.26	1.37	0.39	10	3	1	6	2	1
AROMATICS	33.0	0.6	2.9	34.66	5.48	11.28	256	11	28	159	7	17
BENZENE	2.6	0.4	0.9	2.73	2.74	3.50	20	5	8	12	3	5
TOLUENE	6.0	0.4	0.9	6.30	2.74	3.50	47	5	9	29	3	5
C8+AROM	24.4	0.0	1.1	25.63	0.00	4.28	192	0	11	120	0	7
UNKNOWN	12.4	0.0	0.4	0.00	0.00	0.00	98	0	4	61	0	2
INDIVIDUAL COMPONENTS												
METHANE	10.5	7.6	8.7	11.03	52.05	33.85	99	122	101	62	76	63
ETHYLENE	3.3	0.3	0.7	3.47	2.05	2.72	27	4	7	17	3	4
ETHANE	1.5	0.6	0.8	1.58	4.11	3.11	13	9	9	8	6	5
ACETYLENE	0.7	0.0	0.0	0.74	0.00	0.00	5	0	0	3	0	0
C3 + C3=	1.7	0.1	0.0	1.79	0.68	0.00	14	1	0	9	1	0
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.4	0.2	0.3	0.42	1.37	1.17	3	3	3	2	2	2
B1 + IB	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NC4 +B=1=3	3.4	1.1	2.3	3.57	7.53	8.95	29	16	24	18	10	15
TBUTENE-2	0.2	0.0	0.0	0.21	0.00	0.00	2	0	0	1	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.0	0.21	0.00	0.00	2	0	0	1	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	2.3	0.5	1.4	2.42	3.42	5.45	20	7	15	12	5	9
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	0.6	0.1	0.3	0.63	0.68	1.17	5	1	3	3	1	2
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO=: 130902
DATE RUN: 03 30 79
CAR: DATSUN PROTOTYPE VIN: KMLA10-004508 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
CISPENT-2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-2	0.3	0.0	0.0	0.32	0.00	0.00	2	0	0	2	0	0
22MBUTANE	0.3	0.7	1.8	0.32	4.79	7.00	3	10	19	2	6	12
CYPENTENE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	0	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.1	0.0	0.11	0.68	0.00	1	1	0	1	1	0
23MBUTANE	0.5	0.1	0.2	0.53	0.68	0.78	4	1	2	3	1	1
2MPENTANE	0.9	0.2	0.3	0.95	1.37	1.17	8	3	3	5	2	2
3MPENTANE	0.8	0.1	0.3	0.84	0.68	1.17	7	1	3	4	1	2
HEXENE-1	0.3	0.0	0.0	0.32	0.00	0.00	2	0	0	2	0	0
N HEXANE	0.5	0.1	0.1	0.53	0.68	0.39	4	1	1	3	1	1
TC6=3=2	0.4	0.0	0.0	0.42	0.00	0.00	3	0	0	2	0	0
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	0.6	0.1	0.1	0.63	0.68	0.39	5	1	1	3	1	1
24MPENTANE	1.1	0.1	0.3	1.16	0.68	1.17	9	1	3	6	1	2
BENZENE	2.6	0.4	0.9	2.73	2.74	3.50	20	5	8	12	3	5
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	2.4	0.3	0.7	2.52	2.05	2.72	20	4	7	13	3	5
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.8	0.1	0.2	0.84	0.68	0.78	7	1	2	4	1	1
224MPENTAN	5.6	0.7	1.9	5.88	4.79	7.39	47	10	20	29	6	12
NHEPTANE	0.7	0.1	0.2	0.74	0.68	0.78	6	1	2	4	1	1
MCYHEXANE	0.2	0.0	0.0	0.21	0.00	0.00	2	0	0	1	0	0
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+23JM	1.3	0.1	0.3	1.37	0.68	1.17	11	1	3	7	1	2
234MC5	1.4	0.1	0.3	1.47	0.68	1.17	12	1	3	7	1	2
TOLUENE	6.0	0.4	0.9	6.30	2.74	3.50	47	5	9	29	3	5
23MC6+4MC7	0.8	0.1	0.2	0.84	0.68	0.78	7	1	2	4	1	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 130902
DATE RUN: 03 30 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
34MHEXANE		1.0	0.1	0.2		1.05	0.68	0.78		8	1	2		5	1	1
3MHEPTANE		0.9	0.1	0.2		0.95	0.68	0.78		8	1	2		5	1	1
255MC6		0.9	0.1	0.2		0.95	0.68	0.78		8	1	2		5	1	1
N OCTANE		0.5	0.0	0.1		0.53	0.00	0.39		4	0	1		3	0	1
223MC6		0.1	0.0	0.0		0.11	0.00	0.00		1	0	0		1	0	0
ETCYHEXANE		0.3	0.0	0.0		0.32	0.00	0.00		2	0	0		2	0	0
ET BENZENE		1.3	0.0	0.1		1.37	0.00	0.39		10	0	1		6	0	1
M+PXYLENE		6.4	0.0	0.4		6.72	0.00	1.56		50	0	4		31	0	2
2+4MC6		1.0	0.0	0.2		1.05	0.00	0.78		8	0	2		5	0	1
O XYLENE		2.6	0.0	0.1		2.73	0.00	0.39		20	0	1		13	0	1
N NONANE		0.8	0.0	0.1		0.84	0.00	0.39		7	0	1		4	0	1
IPRBENZENE		0.5	0.0	0.1		0.53	0.00	0.39		4	0	1		2	0	1
NPRBENZENE		0.4	0.0	0.0		0.42	0.00	0.00		3	0	0		2	0	0
1M3ETBENZ		3.2	0.0	0.1		3.36	0.00	0.39		25	0	1		16	0	1
135MEBENZ		1.4	0.0	0.2		1.47	0.00	0.78		11	0	2		7	0	1
1M2ETBENZ		1.0	0.0	0.0		1.05	0.00	0.00		8	0	0		5	0	0
124MBENZ		5.0	0.0	0.1		5.25	0.00	0.39		39	0	1		24	0	1
SBUBENZENE		0.3	0.0	0.0		0.32	0.00	0.00		2	0	0		1	0	0
N DECANE		0.2	0.0	0.0		0.21	0.00	0.00		2	0	0		1	0	0
123MBENZ		1.3	0.0	0.0		1.37	0.00	0.00		10	0	0		6	0	0
INDANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
13EBENZENE		0.1	0.0	0.0		0.11	0.00	0.00		1	0	0		0	0	0
NBUBENZENE		0.3	0.0	0.0		0.32	0.00	0.00		2	0	0		1	0	0
1M3PRBENZ		0.6	0.0	0.0		0.63	0.00	0.00		5	0	0		3	0	0
UNKNOWNS		12.4	0.0	0.4		13.03	0.00	1.56		98	0	4		61	0	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 131101
DATE RUN: 03 28 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: HYLK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	74.1	16.8	42.1
GC PPMC	94.7	14.9	36.6

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	8.3	6.4	8.0	8.76	42.95	21.86	82	112	114	51	70	71
SATURATES	35.0	6.1	21.2	36.96	40.94	57.92	310	96	270	193	59	168
OLEFINS	6.2	0.3	1.7	6.55	2.01	4.64	54	5	21	33	3	13
ACETYLENE	0.5	0.0	0.0	0.53	0.00	0.00	4	0	0	2	0	0
NAPTHENES	1.2	0.2	0.5	1.27	1.34	1.37	10	3	6	6	2	4
AROMATICS	25.8	1.2	5.0	27.24	8.05	13.66	210	17	58	130	11	36
BENZENE	2.2	0.7	1.9	2.32	4.70	5.19	18	10	22	11	6	14
TOLUENE	5.0	0.4	1.3	5.28	2.68	3.55	41	6	15	25	4	9
C8+AROM	18.6	0.1	1.8	19.64	0.67	4.92	154	1	21	95	1	13
UNKNOWN	17.7	0.7	0.2	0.00	0.00	0.00	147	10	2	91	6	1
INDIVIDUAL COMPONENTS												
METHANE	8.3	6.4	8.0	8.76	42.95	21.86	82	112	114	51	70	71
ETHYLENE	2.8	0.3	0.9	2.96	2.01	2.46	24	5	11	15	3	7
ETHANE	1.6	0.4	0.8	1.69	2.68	2.19	15	7	11	9	4	7
ACETYLENE	0.5	0.0	0.0	0.53	0.00	0.00	4	0	0	2	0	0
C3 + C3=	1.8	0.0	0.3	1.90	0.00	0.82	16	0	4	10	0	2
C=C=C	0.0	0.0	0.1	0.00	0.00	0.27	0	0	1	0	0	1
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.5	0.2	0.7	0.53	1.34	1.91	4	3	9	3	2	6
B1 + IB	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NC4 +B=1=3	4.9	1.2	5.2	5.17	8.05	14.21	44	19	67	27	12	42
TBUTENE-2	0.3	0.0	0.1	0.32	0.00	0.27	3	0	1	2	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.1	0.21	0.00	0.27	2	0	1	1	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	3.4	0.7	3.0	3.59	4.70	8.20	30	11	38	19	7	24
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	0.7	0.2	0.5	0.74	1.34	1.37	6	3	6	4	2	4
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 131101
DATE RUN: 03 28 79
CAR: DATSUN PROTOTYPE VIN: KNLA10-004508 DRIVER: MYER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT-2	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
CISPENT-2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-2	0.3	0.0	0.1	0.32	0.00	0.27	3	0	1	2	0	1
22MBUTANE	0.1	0.6	0.9	0.11	4.03	2.46	1	9	11	1	6	7
CYPENTENE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.1	0.0	0.11	0.67	0.00	1	2	0	1	1	0
23MBUTANE	0.6	0.1	0.4	0.63	0.67	1.09	5	2	5	3	1	3
2MPENTANE	1.8	0.3	0.8	1.90	2.01	2.19	16	5	10	10	3	6
3MPENTANE	0.9	0.2	0.5	0.95	1.34	1.37	8	3	6	5	2	4
HEXENE-1	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
N HEXANE	0.6	0.1	0.3	0.63	0.67	0.82	5	2	4	3	1	2
TC6=3,=2	0.3	0.0	0.1	0.32	0.00	0.27	3	0	1	2	0	1
CC6=3	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	0.7	0.1	0.3	0.74	0.67	0.82	6	2	4	4	1	2
24MPENTANE	1.3	0.2	0.6	1.37	1.34	1.64	11	3	8	7	2	5
BENZENE	2.2	0.7	1.9	2.32	4.70	5.19	18	10	22	11	6	14
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	2.8	0.3	1.2	2.96	2.01	3.28	25	5	15	15	3	9
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.9	0.1	0.4	0.95	0.67	1.09	8	2	5	5	1	3
224MPNTAN	6.5	0.8	3.0	6.86	5.37	8.20	57	12	38	36	8	24
NHEPTANE	0.8	0.1	0.3	0.84	0.67	0.82	7	2	4	4	1	2
MCYHEXANE	0.2	0.0	0.1	0.21	0.00	0.27	2	0	1	1	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.2	0.1	0.5	1.27	0.67	1.37	11	2	6	7	1	4
234MC5	1.4	0.1	0.5	1.48	0.67	1.37	12	2	6	8	1	4
TOLUENE	5.0	0.4	1.3	5.28	2.68	3.55	41	6	15	25	4	9
23MC6+4MC7	0.7	0.1	0.3	0.74	0.67	0.82	6	2	4	4	1	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 131101
DATE RUN: 03 28 79
CAR: DATSUN PROTOTYPE VIN: KMLA10-004508 DRIVER: MYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	0.8	0.1	0.3	0.84	0.67	0.82	7	2	4	4	1	2
3MHEPTANE	0.7	0.1	0.3	0.74	0.67	0.82	6	2	4	4	1	2
25MC6	0.8	0.0	0.3	0.84	0.00	0.82	7	0	4	4	0	2
N OCTANE	0.4	0.0	0.1	0.42	0.00	0.27	4	0	1	2	0	1
23MC6	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
ETCYHEXANE	0.2	0.0	0.1	0.21	0.00	0.27	2	0	1	1	0	1
ET BENZENE	1.0	0.0	0.1	1.06	0.00	0.27	8	0	1	5	0	1
M+PXYLENE	4.6	0.1	0.5	4.86	0.67	1.37	38	1	6	23	1	4
2+4MC8	0.7	0.1	0.2	0.74	0.67	0.55	6	2	3	4	1	2
O XYLENE	1.9	0.0	0.2	2.01	0.00	0.55	16	0	2	10	0	1
N NONANE	0.6	0.0	0.1	0.63	0.00	0.27	5	0	1	3	0	1
IPRBENZENE	0.4	0.0	0.1	0.42	0.00	0.27	3	0	1	2	0	1
NPRBENZENE	0.3	0.0	0.0	0.32	0.00	0.00	2	0	0	2	0	0
1M3ETBENZ	2.3	0.0	0.2	2.43	0.00	0.55	19	0	2	12	0	1
135MEBENZ	1.0	0.0	0.3	1.06	0.00	0.82	8	0	4	5	0	2
1M2ETBENZ	0.7	0.0	0.1	0.74	0.00	0.27	6	0	1	4	0	1
124MBENZ	3.9	0.0	0.3	4.12	0.00	0.82	32	0	4	20	0	2
SBUBENZENE	0.3	0.0	0.0	0.32	0.00	0.00	2	0	0	2	0	0
N DECANE	0.2	0.0	0.0	0.21	0.00	0.00	2	0	0	1	0	0
123MBENZ	1.1	0.0	0.0	1.16	0.00	0.00	9	0	0	6	0	0
INDANE	0.3	0.0	0.0	0.32	0.00	0.00	2	0	0	2	0	0
13EBENZENE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
NBUBENZENE	0.2	0.0	0.0	0.21	0.00	0.00	2	0	0	1	0	0
1M3PRBENZ	0.5	0.0	0.0	0.53	0.00	0.00	4	0	0	3	0	0
UNKNOWNS	17.7	0.7	0.2	18.69	4.70	0.55	147	10	2	91	6	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 131102
DATE RUN: 03 29 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004506 DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	68.2	15.7	31.0
GC PPMC	63.3	14.4	25.1

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	7.7	5.3	6.7	12.16	36.81	26.69	105	92	98	65	57	61
SATURATES	27.0	5.1	12.8	42.65	35.42	51.00	329	79	168	204	49	104
OLEFINS	5.3	0.6	0.9	8.37	4.17	3.59	63	9	12	39	6	7
ACETYLENE	0.1	0.0	0.0	0.16	0.00	0.00	1	0	0	1	0	0
NAPTHENES	1.0	0.1	0.4	1.58	0.69	1.59	12	2	5	7	1	3
AROMATICS	17.1	1.4	4.0	27.01	9.72	15.94	191	20	48	119	12	30
BENZENE	1.9	0.6	1.4	3.00	4.17	5.58	21	8	17	13	5	10
TOLUENE	4.0	0.4	1.0	6.32	2.78	3.98	45	6	12	28	4	7
C8+AROM	11.2	0.4	1.6	17.69	2.78	6.37	127	6	20	79	4	12
UNKNOWN	5.1	1.9	0.3	0.00	0.00	0.00	58	27	4	36	17	2
INDIVIDUAL COMPONENTS												
METHANE	7.7	5.3	6.7	12.16	36.81	26.69	105	92	98	65	57	61
ETHYLENE	2.5	0.3	0.6	3.95	2.08	2.39	30	5	8	18	3	5
ETHANE	1.3	0.4	0.6	2.05	2.78	2.39	17	6	8	10	4	5
ACETYLENE	0.1	0.0	0.0	0.16	0.00	0.00	1	0	0	1	0	0
C3 + C3=	1.6	0.3	0.2	2.53	2.08	0.80	19	5	3	12	3	2
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.4	0.1	0.3	0.63	0.69	1.20	5	2	4	3	1	2
B1 + IB	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NC4 +B=I=3	3.5	0.9	2.6	5.53	6.25	10.36	43	14	34	27	9	21
TBUTENE-2	0.2	0.0	0.0	0.32	0.00	0.00	2	0	0	1	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.0	0.32	0.00	0.00	2	0	0	1	0	0
B=I=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.16	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	2.3	0.6	1.6	3.63	4.17	6.37	28	9	21	17	6	13
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	0.6	0.2	0.3	0.95	1.39	1.20	7	3	4	5	2	2
2MB=I=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 131102
DATE RUN: 03 29 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-00450R DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.2	0.0	0.0	0.32	0.00	0.00	2	0	0	1	0	0
CISPENT-2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-2	0.2	0.0	0.1	0.32	0.00	0.40	2	0	1	1	0	1
22MBUTANE	0.1	0.2	0.4	0.16	1.39	1.59	1	3	5	1	2	3
CYPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.0	0.16	0.00	0.00	1	0	0	1	0	0
23MHUTANE	0.6	0.1	0.2	0.95	0.69	0.80	7	2	3	5	1	2
2MPENTANE	1.1	0.3	0.5	1.74	2.08	1.99	13	5	7	8	3	4
3MPENTANE	0.6	0.1	0.3	0.95	0.69	1.20	7	2	4	5	1	2
HEXENE-1	0.1	0.0	0.0	0.16	0.00	0.00	1	0	0	1	0	0
N HEXANE	0.4	0.1	0.2	0.63	0.69	0.80	5	2	3	3	1	2
TC6=3,=2	0.2	0.0	0.0	0.32	0.00	0.00	2	0	0	1	0	0
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	0.5	0.1	0.2	0.79	0.69	0.80	6	2	3	4	1	2
24MPENTANE	1.0	0.1	0.4	1.58	0.69	1.59	12	2	5	8	1	3
BENZENE	1.9	0.6	1.4	3.00	4.17	5.58	21	8	17	13	5	10
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	2.2	0.3	0.8	3.48	2.08	3.19	27	5	10	17	3	6
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.8	0.1	0.3	1.26	0.69	1.20	10	2	4	6	1	2
224MPENTAN	5.2	0.7	2.1	8.21	4.86	8.37	63	11	27	39	7	17
NHEPTANE	0.6	0.1	0.2	0.95	0.69	0.80	7	2	3	5	1	2
MCYHEXANE	0.2	0.0	0.1	0.32	0.00	0.40	2	0	1	1	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.0	0.1	0.4	1.58	0.69	1.59	12	2	5	8	1	3
234MC5	1.1	0.1	0.4	1.74	0.69	1.59	13	2	5	8	1	3
TOLUENE	4.0	0.4	1.0	6.32	2.78	3.98	45	6	12	28	4	7
23MC6+4MC7	0.6	0.1	0.2	0.95	0.69	0.80	7	2	3	5	1	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 131102
DATE RUN: 03 29 79
CAR: DATSUN PROTOTYPE VIN: KHLA10-004508 DRIVER: MYLK FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
34MHEXANE		0.7	0.1	0.2		1.11	0.69	0.80		8	2	3		5	1	2
3MHEPTANE		0.6	0.1	0.2		0.95	0.69	0.80		7	2	3		5	1	2
255MC6		0.7	0.1	0.2		1.11	0.69	0.80		8	2	3		5	1	2
N OCTANE		0.4	0.0	0.1		0.63	0.00	0.40		5	0	1		3	0	1
223MC6		0.1	0.0	0.0		0.16	0.00	0.00		1	0	0		1	0	0
ETCYHEXANE		0.2	0.0	0.1		0.32	0.00	0.40		2	0	1		1	0	1
ET BENZENE		0.7	0.0	0.1		1.11	0.00	0.40		8	0	1		5	0	1
M+PXYLENE		3.0	0.2	0.4		4.74	1.39	1.59		34	3	5		21	2	3
244MC8		0.6	0.1	0.2		0.95	0.69	0.80		7	2	3		5	1	2
O XYLENE		1.2	0.1	0.2		1.90	0.69	0.80		13	1	2		8	1	2
N NONANE		0.5	0.1	0.1		0.79	0.69	0.40		6	2	1		4	1	1
IPRBENZENE		0.4	0.1	0.1		0.63	0.69	0.40		5	1	1		3	1	1
NPRBENZENE		0.2	0.0	0.0		0.32	0.00	0.00		2	0	0		1	0	0
1M3ETBENZ		1.2	0.0	0.1		1.90	0.00	0.40		14	0	1		8	0	1
135MEBENZ		0.5	0.0	0.3		0.79	0.00	1.20		6	0	4		4	0	2
1M2ETBENZ		0.6	0.0	0.1		0.95	0.00	0.40		7	0	1		4	0	1
124MBENZ		1.8	0.0	0.2		2.84	0.00	0.80		20	0	2		13	0	2
SBUBENZENE		0.5	0.0	0.1		0.79	0.00	0.40		6	0	1		4	0	1
N DECANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
123MBENZ		0.6	0.0	0.0		0.95	0.00	0.00		7	0	0		4	0	0
INDANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
13DEBENZENE		0.1	0.0	0.0		0.16	0.00	0.00		1	0	0		1	0	0
NBUBLNZENE		0.1	0.0	0.0		0.16	0.00	0.00		1	0	0		1	0	0
1M3PRBENZ		0.3	0.0	0.0		0.47	0.00	0.00		3	0	0		2	0	0
UNKNOWNS		5.1	1.9	0.3		8.06	13.19	1.20		56	27	4		36	17	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140001
DATE RUN: 05 24 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9U156640 DRIVER: HYEK FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 0

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	1467.8	32.7	44.2
GC PPMC	1272.6	27.2	34.7

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	123.6	11.8	12.9	9.71	43.38	37.18	1910	240	195	1187	149	121
SATURATES	507.6	10.8	15.6	39.89	39.71	44.96	7021	197	212	4364	122	132
OLEFINS	294.9	1.6	2.5	23.17	5.88	7.20	3984	28	33	2476	18	21
ACETYLENE	16.1	0.0	0.0	1.27	0.00	0.00	202	0	0	125	0	0
NAPTHENES	27.6	0.3	0.4	2.17	1.10	1.15	373	5	5	232	3	3
AROMATICS	215.6	1.6	3.2	16.94	5.88	9.22	2735	27	40	1700	17	25
BENZENE	37.7	0.3	0.7	2.96	1.10	2.02	473	5	9	294	3	5
TOLUENE	53.4	0.5	0.8	4.20	1.84	2.31	677	8	10	421	5	6
C8+AROM	124.5	0.8	1.7	9.78	2.94	4.90	1605	14	21	998	8	13
UNKNOWN	87.2	1.1	0.1	0.00	0.00	0.00	1127	19	1	701	12	1
INDIVIDUAL COMPONENTS												
METHANE	123.6	11.8	12.9	9.71	43.38	37.18	1910	240	195	1187	149	121
ETHYLENE	91.1	1.0	1.7	7.16	3.68	4.90	1231	18	23	765	11	14
ETHANE	22.5	1.3	1.4	1.77	4.78	4.03	326	25	20	202	15	12
ACETYLENE	16.1	0.0	0.0	1.27	0.00	0.00	202	0	0	125	0	0
C3 + C3=	86.3	0.4	0.6	6.78	1.47	1.73	1166	7	8	725	4	5
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	9.9	0.4	0.5	0.78	1.47	1.44	139	7	7	86	5	4
B1 + 1B	37.6	0.8	0.0	2.95	0.00	0.00	508	0	0	316	0	0
NC4 46=1=3	61.9	1.9	2.5	4.86	6.99	7.20	866	35	34	538	22	21
TBUTENE-2	9.7	0.1	0.1	0.76	0.37	0.29	131	2	1	81	1	1
22MPRUPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	7.4	0.1	0.1	0.58	0.37	0.29	100	2	1	62	1	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	1.6	0.0	0.0	0.13	0.00	0.00	22	0	0	13	0	0
ISOPENTANE	50.2	1.5	2.2	3.94	5.51	6.34	698	27	30	434	17	19
PENTLNE-1	2.2	0.0	0.0	0.17	0.00	0.00	30	0	0	18	0	0
2MBUT-1	6.6	0.0	0.0	0.52	0.00	0.00	89	0	0	55	0	0
NPENTANE	10.6	0.3	0.5	0.85	1.10	1.44	150	5	7	93	3	4
2MB=1=3	6.1	0.0	0.0	0.48	0.00	0.00	80	0	0	50	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140001
DATE RUN: 05 24 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9H158640 DRIVER: HYEK FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	7.5	0.0	0.0	0.59	0.00	0.00	101	0	0	63	0	0
CISPENT-2	3.6	0.0	0.0	0.28	0.00	0.00	49	0	0	30	0	0
2MBUT-2	14.3	0.0	0.0	1.12	0.00	0.00	193	0	0	120	0	0
22MBUTANE	0.7	0.1	0.2	0.06	0.37	0.58	10	2	3	6	1	2
CYPENTENE	1.6	0.0	0.0	0.13	0.00	0.00	21	0	0	13	0	0
3MPENTENE	1.0	0.0	0.0	0.08	0.00	0.00	14	0	0	8	0	0
CYPENTANE	1.3	0.0	0.0	0.10	0.00	0.00	16	0	0	11	0	0
23MBUTANE	10.8	0.2	0.3	0.85	0.74	0.86	149	4	4	93	2	3
2MPENTANE	27.9	0.5	0.6	2.19	1.84	1.73	386	9	8	240	6	5
3MPENTANE	16.4	0.3	0.7	1.29	1.10	2.02	227	5	9	141	3	6
HEXENE-1	4.1	0.0	0.0	0.32	0.00	0.00	55	0	0	34	0	0
N HEXANE	7.5	0.1	0.2	0.59	0.37	0.58	104	2	3	64	1	2
TC6=3=2	8.5	0.0	0.0	0.67	0.00	0.00	115	0	0	71	0	0
CC6=3	2.4	0.0	0.0	0.19	0.00	0.00	32	0	0	20	0	0
2MPENTENE2	3.3	0.0	0.0	0.26	0.00	0.00	45	0	0	28	0	0
MCYP43M2C5	13.9	0.2	0.3	1.09	0.74	0.86	188	4	4	117	2	2
24MPENTANE	22.8	0.3	0.5	1.79	1.10	1.44	314	5	7	195	3	4
BENZENE	37.7	0.3	0.7	2.96	1.10	2.02	473	5	9	294	3	5
CYHEXANE	3.1	0.0	0.0	0.24	0.00	0.00	42	0	0	26	0	0
2MC6+23MC5	59.1	0.8	1.3	4.64	2.94	3.75	815	15	18	506	9	11
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	12.1	0.2	0.3	0.95	0.74	0.86	167	4	4	104	2	3
224MPENTAN	88.4	1.7	2.4	6.95	6.25	6.92	1216	31	32	756	19	20
NHEPTANE	10.8	0.1	0.1	0.85	0.37	0.29	149	2	1	93	1	1
MCYHEXANE	6.9	0.1	0.1	0.54	0.37	0.29	93	2	1	58	1	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	16.9	0.2	0.3	1.33	0.74	0.86	232	4	4	144	2	3
234MC5	23.1	0.3	0.5	1.82	1.10	1.44	318	5	7	197	3	4
TOLUENE	53.4	0.5	0.8	4.20	1.84	2.31	677	8	10	421	5	6
23MC6+4MC7	10.2	0.1	0.2	0.80	0.37	0.58	140	2	3	87	1	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140001
DATE RUN: 05 24 79
CAR: 1979 DODGE ASPEN CALIF. VIN: ML29C9U158640 DRIVER: MYER FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	9.0	0.1	0.2	0.71	0.37	0.58	124	2	3	77	1	2
3MHEPTANE	9.7	0.1	0.2	0.76	0.37	0.58	133	2	3	83	1	2
255MC6	9.0	0.1	0.2	0.71	0.37	0.58	124	2	3	77	1	2
N OCTANE	4.2	0.0	0.1	0.33	0.00	0.29	58	0	1	36	0	1
223MC6	1.6	0.0	0.0	0.13	0.00	0.00	22	0	0	14	0	0
ETCYHEXANE	2.4	0.0	0.0	0.19	0.00	0.00	32	0	0	20	0	0
ET BENZENE	9.9	0.1	0.1	0.78	0.37	0.29	127	2	1	79	1	1
M+PXYLENE	36.7	0.2	0.4	2.88	0.74	1.15	469	3	5	292	2	3
294MC8	5.4	0.1	0.1	0.42	0.37	0.29	74	2	1	46	1	1
O XYLENE	15.5	0.1	0.2	1.22	0.37	0.58	198	2	3	123	1	2
N NONANE	5.9	0.1	0.1	0.46	0.37	0.29	81	2	1	50	1	1
IPRBENZENE	4.2	0.1	0.1	0.33	0.37	0.29	54	2	1	34	1	1
NPRBENZENE	2.2	0.0	0.0	0.17	0.00	0.00	28	0	0	18	0	0
1M3ETBENZ	14.9	0.1	0.2	1.17	0.37	0.58	192	2	3	119	1	2
135MEBENZ	5.5	0.0	0.1	0.43	0.00	0.29	71	0	1	44	0	1
1M2ETBENZ	6.6	0.0	0.2	0.52	0.00	0.58	85	0	3	53	0	2
124MBENZ	17.6	0.1	0.2	1.38	0.37	0.58	226	2	3	141	1	2
SBUBENZENE	1.8	0.1	0.1	0.14	0.37	0.29	23	2	1	14	1	1
N DECANE	0.8	0.0	0.0	0.06	0.00	0.00	11	0	0	7	0	0
123MBENZ	3.7	0.0	0.1	0.29	0.00	0.29	48	0	1	30	0	1
INDANE	1.3	0.0	0.0	0.10	0.00	0.00	16	0	0	10	0	0
13EBENZENE	1.1	0.0	0.0	0.09	0.00	0.00	14	0	0	9	0	0
NBUBENZENE	1.6	0.0	0.0	0.13	0.00	0.00	21	0	0	13	0	0
1M3PRBENZ	1.9	0.0	0.0	0.15	0.00	0.00	25	0	0	15	0	0
UNKNOWNS	87.2	1.1	0.1	6.85	4.04	0.29	1127	19	1	701	12	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140002
DATE RUN: 05 25 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL2VC9H15R640 DRIVER: HYEK FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 0

HYDROCARBON CONCENTRATION BAG1 BAG2 BAG3
FID PPMC 1041.4 34.3 43.3
GC PPMC 941.9 27.7 36.7

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	115.0	13.3	11.7	12.21	48.01	33.72	1686	288	180	1048	179	112
SATURATES	362.8	9.8	16.9	38.52	35.38	48.70	4763	190	233	2960	118	145
OLEFINS	208.1	1.3	2.3	22.09	4.69	7.20	2669	25	34	1659	15	21
ACETYLENE	15.9	0.0	0.0	1.69	0.00	0.00	189	0	0	118	0	0
NAPTHENES	19.7	0.2	0.5	2.09	0.72	1.44	253	4	7	157	2	4
AROMATICS	160.7	2.4	2.4	17.06	8.66	6.92	1935	43	30	1203	27	19
BENZENE	28.6	0.3	0.6	3.04	1.08	1.73	340	5	8	212	3	5
TOLUENE	38.7	0.5	0.8	4.11	1.81	2.31	466	9	10	290	6	6
C8+AROM	93.4	1.6	1.0	9.92	5.78	2.88	1143	29	13	711	18	8
UNKNOWN	59.7	0.7	0.7	0.00	0.00	0.00	733	13	9	455	8	6
INDIVIDUAL COMPONENTS												
METHANE	115.0	13.3	11.7	12.21	48.01	33.72	1686	288	180	1048	179	112
ETHYLENE	66.6	0.9	1.6	7.07	3.25	4.61	854	17	22	531	11	13
ETHANE	16.4	1.2	1.2	1.74	4.33	3.46	225	24	17	140	15	11
ACETYLENE	15.9	0.0	0.0	1.69	0.00	0.00	189	0	0	118	0	0
C3 + C3=	57.8	0.3	0.5	6.14	1.08	1.44	741	6	7	461	4	4
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	6.7	0.3	0.4	0.71	1.08	1.15	69	6	6	55	4	3
B1 + IB	26.8	0.0	0.0	2.85	0.00	0.00	344	0	0	214	0	0
NC4 +B=1=3	39.6	1.5	2.5	4.20	5.42	7.20	526	29	35	327	18	22
TBUTENE-2	6.5	0.0	0.1	0.69	0.00	0.29	83	0	1	52	0	1
22MBUTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	5.0	0.0	0.1	0.53	0.00	0.29	64	0	1	40	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	1.2	0.0	0.0	0.13	0.00	0.00	15	0	0	10	0	0
ISOPENTANE	37.8	1.5	2.4	4.01	5.42	6.92	499	29	33	310	18	21
PENTENE-1	1.8	0.0	0.0	0.19	0.00	0.00	23	0	0	14	0	0
2MBUT-1	4.0	0.0	0.0	0.42	0.00	0.00	51	0	0	32	0	0
NPENTANE	7.9	0.3	0.5	0.84	1.08	1.44	104	6	7	65	4	4
2MB=1=3	3.7	0.0	0.0	0.39	0.00	0.00	46	0	0	29	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140002
DATE RUN: 05 25 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVER: HYEK FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	5.7	0.0	0.1	0.61	0.00	0.29	73	0	1	45	0	1
CISPENT-2	2.8	0.0	0.0	0.30	0.00	0.00	36	0	0	22	0	0
2MBUT-2	11.5	0.1	0.0	1.22	0.36	0.00	147	2	0	92	1	0
22MBUTANE	0.6	0.1	0.1	0.06	0.36	0.29	8	2	1	5	1	1
CYPENTENE	1.2	0.0	0.1	0.13	0.00	0.29	15	0	1	9	0	1
3MPENTENE	1.0	0.0	0.0	0.11	0.00	0.00	13	0	0	8	0	0
CYPENTANE	1.1	0.0	0.1	0.12	0.00	0.29	14	0	1	9	0	1
23MBUTANE	8.2	0.2	0.4	0.87	0.72	1.15	108	4	6	67	2	3
2MPENTANE	20.5	0.5	0.9	2.18	1.81	2.59	269	10	12	167	6	8
3MPENTANE	11.2	0.3	0.9	1.19	1.08	2.59	147	6	12	91	4	8
HEXENE-1	2.3	0.0	0.0	0.24	0.00	0.00	29	0	0	18	0	0
N HEXANE	4.9	0.1	0.3	0.52	0.36	0.86	64	2	4	40	1	3
TC6=3,=2	6.2	0.0	0.0	0.66	0.00	0.00	80	0	0	49	0	0
CC6=3	1.6	0.0	0.0	0.17	0.00	0.00	21	0	0	13	0	0
2MPENTENE2	2.4	0.0	0.0	0.25	0.00	0.00	31	0	0	19	0	0
MCYP43M2C5	9.7	0.1	0.3	1.03	0.36	0.86	124	2	4	77	1	3
24MPENTANE	16.1	0.3	0.6	1.71	1.08	1.73	211	6	8	131	4	5
BENZENE	28.6	0.3	0.6	3.04	1.08	1.73	340	5	8	212	3	5
CYHEXANE	2.3	0.0	0.0	0.24	0.00	0.00	29	0	0	18	0	0
2MC6+23MC5	42.2	0.7	1.4	4.48	2.53	4.03	552	14	19	343	8	12
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	8.6	0.1	0.3	0.91	0.36	0.86	113	2	4	70	1	3
224MPENTAN	63.7	1.5	2.6	6.76	5.42	7.49	831	29	36	517	18	22
MHEPTANE	8.0	0.1	0.2	0.85	0.36	0.58	105	2	3	65	1	2
MCYHEXANE	4.9	0.1	0.1	0.52	0.36	0.29	63	2	1	39	1	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	12.2	0.2	0.4	1.30	0.72	1.15	159	4	5	99	2	3
234MC5	17.0	0.3	0.6	1.80	1.08	1.73	222	6	8	138	4	5
TOLUENE	38.7	0.5	0.8	4.11	1.81	2.31	466	9	10	290	6	6
23MC6+4MC7	7.5	0.1	0.3	0.80	0.36	0.86	98	2	4	61	1	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140002
DATE RUN: 05 25 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29CVB158640 DRIVER: MYER FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	6.5	0.1	0.2	0.69	0.36	0.58	85	2	3	53	1	2
3MHEPTANE	7.1	0.1	0.2	0.75	0.36	0.56	93	2	3	58	1	2
25DMC6	6.6	0.0	0.2	0.70	0.00	0.58	86	0	3	53	0	2
N OCTANE	3.1	0.1	0.1	0.33	0.36	0.29	40	2	1	25	1	1
223MC6	1.2	0.0	0.0	0.13	0.00	0.00	16	0	0	10	0	0
ETCYHEXANE	1.7	0.0	0.0	0.18	0.00	0.00	22	0	0	14	0	0
ET BENZENE	6.9	0.1	0.1	0.73	0.36	0.29	84	2	1	52	1	1
M+PXYLENE	27.3	0.3	0.3	2.90	1.08	0.86	331	5	4	206	3	2
24MC8	4.1	0.1	0.1	0.44	0.36	0.29	53	2	1	33	1	1
O XYLENE	11.9	0.1	0.2	1.26	0.36	0.58	144	2	3	90	1	2
N NONANE	4.5	0.1	0.1	0.48	0.36	0.29	59	2	1	36	1	1
IPROBENZENE	3.2	0.1	0.1	0.34	0.36	0.29	39	2	1	24	1	1
NPROBENZENE	1.4	0.0	0.0	0.15	0.00	0.00	17	0	0	11	0	0
1M3ETBENZ	11.1	0.2	0.2	1.18	0.72	0.58	136	4	3	84	2	2
135MEBENZ	4.2	0.1	0.0	0.45	0.36	0.00	51	2	0	32	1	0
1M2ETBENZ	5.2	0.2	0.0	0.55	0.72	0.00	63	4	0	39	2	0
124MBENZ	13.7	0.3	0.1	1.45	1.08	0.29	167	5	1	104	3	1
SBUBENZENE	1.4	0.1	0.0	0.15	0.36	0.00	17	2	0	11	1	0
N DECANE	0.8	0.0	0.0	0.86	0.00	0.00	8	0	0	5	0	0
123MBENZ	2.7	0.1	0.0	0.29	0.36	0.00	33	2	0	20	1	0
INDANE	1.0	0.0	0.0	0.11	0.00	0.00	12	0	0	7	0	0
13EMBENZENE	0.8	0.0	0.0	0.08	0.00	0.00	10	0	0	6	0	0
NBUBENZENE	0.9	0.0	0.0	0.10	0.00	0.00	11	0	0	7	0	0
1M3PBENZ	1.7	0.0	0.0	0.18	0.00	0.00	21	0	0	13	0	0
UNKNOWNS	59.7	0.7	0.7	6.34	2.53	2.02	733	13	9	455	8	6

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140701
DATE RUN: 05 23 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9H150640 DRIVER: HYEK FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 20

HYDROCARBON CONCENTRATION BAG1 BAG2 BAG3
FID PPMC 989.5 35.2 50.7
GC PPMC 652.2 27.8 7.0

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
				MAJOR COMPOUNDS								
METHANE	95.7	13.6	4.0	11.23	48.92	57.14	1467	318	354	912	198	220
SATURATES	326.5	9.4	1.8	38.31	33.81	25.71	4480	197	143	2785	122	89
OLEFINS	219.6	1.5	0.2	25.77	5.40	2.86	2943	31	15	1829	19	10
ACETYLENE	16.2	0.0	0.0	1.90	0.00	0.00	202	0	0	125	0	0
NAPTHENES	17.9	0.2	0.0	2.10	0.72	0.00	240	4	0	149	3	0
AROMATICS	134.4	2.2	0.1	15.77	7.91	1.43	1692	42	7	1051	26	5
BENZENE	25.0	0.4	0.1	2.93	1.44	1.43	311	8	7	193	5	4
TOLUENE	34.0	0.5	0.0	3.99	1.80	0.00	428	10	0	266	6	0
C8+AROM	75.4	1.3	0.0	8.85	4.68	0.00	965	25	0	599	16	0
UNKNOWN	41.9	0.9	0.9	0.00	0.00	0.00	537	18	67	334	11	41
				INDIVIDUAL COMPOUNDS								
METHANE	95.7	13.6	4.0	11.23	48.92	57.14	1467	318	354	912	198	220
ETHYLENE	68.8	1.1	0.2	8.07	3.96	2.86	922	23	15	573	14	10
ETHANE	17.0	1.2	0.2	1.99	4.32	2.86	244	26	17	152	16	10
ACETYLENE	16.2	0.0	0.0	1.90	0.00	0.00	202	0	0	125	0	0
C3 + C3=	69.9	0.5	0.0	8.20	1.08	0.00	937	6	0	582	4	0
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	7.2	0.3	0.1	0.84	1.08	1.43	100	6	8	62	4	5
B1 + 1B	31.2	0.0	0.0	3.66	0.00	0.00	418	0	0	260	0	0
NC4 +B=1=3	42.6	1.4	0.3	5.00	5.04	4.29	591	30	24	368	18	15
TBUTENE-2	7.1	0.0	0.0	0.83	0.00	0.00	95	0	0	59	0	0
22MBUTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	5.5	0.0	0.0	0.65	0.00	0.00	74	0	0	46	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	1.2	0.0	0.0	0.14	0.00	0.00	16	0	0	10	0	0
ISOPENTANE	33.0	1.2	0.3	3.87	4.32	4.29	455	25	24	283	16	15
PENTENE-1	1.3	0.0	0.0	0.15	0.00	0.00	17	0	0	11	0	0
2MBUT-1	4.2	0.0	0.0	0.49	0.00	0.00	56	0	0	35	0	0
NPENTANE	7.2	0.3	0.1	0.84	1.08	1.43	99	6	8	62	4	5
2MB=1=3	1.3	0.0	0.0	0.15	0.00	0.00	17	0	0	11	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140201
DATE RUN: 05 23 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9H15R640 DRIVER: HYEK FUEL: WINTER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	4.2	0.0	0.0	0.49	0.00	0.00	56	0	0	35	0	0
CISPENT-2	2.1	0.0	0.0	0.25	0.00	0.00	28	0	0	17	0	0
2MBUT-2	9.2	0.1	0.0	1.06	0.36	0.00	123	2	0	77	1	0
22MBUTANE	0.6	0.1	0.0	0.07	0.36	0.00	8	2	0	5	1	0
CYPENTENE	0.9	0.0	0.0	0.11	0.00	0.00	12	0	0	7	0	0
3MPENTENE	0.6	0.0	0.0	0.07	0.00	0.00	8	0	0	5	0	0
CYPENTANE	1.1	0.0	0.0	0.13	0.00	0.00	15	0	0	9	0	0
23MBUTANE	7.0	0.2	0.0	0.82	0.72	0.00	96	4	0	60	3	0
2MPENTANE	20.0	0.4	0.1	2.35	1.44	1.43	274	8	8	171	5	5
3MPENTANE	10.5	0.3	0.1	1.23	1.08	1.43	144	6	8	90	4	5
HEXENE-1	2.3	0.0	0.0	0.27	0.00	0.00	31	0	0	19	0	0
N HEXANE	4.8	0.1	0.0	0.56	0.36	0.00	66	2	0	41	1	0
TC6=3,=2	6.7	0.0	0.0	0.79	0.00	0.00	90	0	0	56	0	0
CC6=3	1.2	0.0	0.0	0.14	0.00	0.00	16	0	0	10	0	0
2MPENTENE2	1.9	0.0	0.0	0.22	0.00	0.00	25	0	0	16	0	0
MCYP43M2C5	8.9	0.1	0.0	1.04	0.36	0.00	119	2	0	74	1	0
24MPENTANE	14.1	0.3	0.1	1.65	1.08	1.43	193	6	8	120	4	5
BENZENE	25.0	0.4	0.1	2.93	1.44	1.43	311	8	7	193	5	4
CYHEXANE	2.1	0.0	0.0	0.25	0.00	0.00	28	0	0	17	0	0
2MC6+23MC5	36.3	0.7	0.2	4.26	2.52	2.86	496	15	16	309	9	10
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	7.6	0.2	0.0	0.89	0.72	0.00	104	4	0	65	3	0
224MPENTAN	54.3	1.5	0.3	6.37	5.40	4.29	741	31	24	460	19	15
NHEPTANE	6.3	0.1	0.0	0.74	0.36	0.00	86	2	0	54	1	0
MCYHEXANE	4.4	0.1	0.0	0.52	0.36	0.00	59	2	0	37	1	0
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	10.4	0.2	0.0	1.22	0.72	0.00	142	4	0	88	3	0
234MC5	13.4	0.3	0.0	1.57	1.08	0.00	183	6	0	114	4	0
TOLUENE	34.0	0.5	0.0	3.99	1.80	0.00	428	10	0	266	6	0
23MC6+4MC7	6.2	0.1	0.0	0.73	0.36	0.00	85	2	0	53	1	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 840201
DATE RUN: 05 23 79
CAR: 1979 DODGE ASPLN CALIF. VIN: NL29C9B156640 DRIVEN: HYEK FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	5.6	0.1	0.0	0.66	0.36	0.00	76	2	0	47	1	0
3MHEPTANE	6.0	0.1	0.0	0.70	0.36	0.00	82	2	0	51	1	0
255MC6	5.5	0.1	0.0	0.65	0.36	0.00	75	2	0	47	1	0
N OCTANE	2.5	0.0	0.0	0.29	0.00	0.00	34	0	0	21	0	0
223MC6	0.9	0.0	0.0	0.11	0.00	0.00	12	0	0	8	0	0
ETCYHEXANE	1.4	0.0	0.0	0.16	0.00	0.00	19	0	0	12	0	0
ET BENZENE	6.5	0.1	0.0	0.76	0.36	0.00	82	2	0	51	1	0
M+PXYLENE	23.0	0.3	0.0	2.70	1.08	0.00	292	6	0	181	4	0
24MC8	3.4	0.1	0.0	0.40	0.36	0.00	46	2	0	29	1	0
O XYLENE	9.7	0.1	0.0	1.14	0.36	0.00	123	2	0	76	1	0
N NONANE	3.6	0.1	0.0	0.42	0.36	0.00	49	2	0	30	1	0
IPRBENZENE	2.5	0.0	0.0	0.29	0.00	0.00	32	0	0	20	0	0
NPRBENZENE	1.0	0.0	0.0	0.12	0.00	0.00	13	0	0	8	0	0
1M3ETBENZ	9.5	0.1	0.0	1.11	0.36	0.00	121	2	0	75	1	0
135MEBENZ	3.3	0.2	0.0	0.39	0.72	0.00	42	4	0	26	2	0
1M2ETBENZ	4.1	0.0	0.0	0.48	0.00	0.00	52	0	0	33	0	0
124MBENZ	9.9	0.3	0.0	1.16	1.08	0.00	126	6	0	79	4	0
SBUBENZENE	1.1	0.1	0.0	0.13	0.36	0.00	14	2	0	9	1	0
N DECANE	0.5	0.0	0.0	0.06	0.00	0.00	7	0	0	4	0	0
123MBENZ	1.9	0.1	0.0	0.22	0.36	0.00	24	2	0	15	1	0
INDANE	0.9	0.0	0.0	0.11	0.00	0.00	11	0	0	7	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.9	0.0	0.0	0.11	0.00	0.00	12	0	0	7	0	0
1M3PRBENZ	1.1	0.0	0.0	0.13	0.00	0.00	14	0	0	9	0	0
UNKNOWNS	41.9	0.9	0.9	4.92	3.24	12.86	537	18	67	334	11	41

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140202
DATE RUN: 05 30 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9N158640 DRIVER: HYEK FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 20

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	412.4	25.4	59.4
GC PPMC	368.3	20.6	50.5

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	65.9	7.1	10.6	16.97	34.47	20.99	909	137	154	565	85	96
SATURATES	127.6	9.9	27.0	32.86	48.06	53.47	1575	170	351	979	106	218
OLEFINS	74.6	1.5	5.8	19.21	7.28	11.49	899	25	74	559	16	46
ACETYLENE	13.5	0.0	0.0	3.48	0.00	0.00	151	0	0	94	0	0
NAPTHENES	7.0	0.3	1.2	1.80	1.46	2.38	84	5	15	52	3	9
AROMATICS	70.5	1.0	4.5	18.16	4.85	8.91	798	16	54	496	10	33
BENZENE	13.5	0.4	0.9	3.48	1.94	1.78	151	6	11	94	4	7
TOLUENE	15.1	0.4	1.3	3.89	1.94	2.57	171	6	15	106	4	10
C8+AROM	41.9	0.2	2.3	10.79	0.97	4.55	482	3	28	300	2	17
UNKNOWN	29.2	0.8	1.4	0.00	0.00	0.00	337	13	17	209	8	11
INDIVIDUAL COMPONENTS												
METHANE	65.9	7.1	10.6	16.97	34.47	20.99	909	137	154	565	85	96
ETHYLENE	27.8	1.3	3.6	7.16	6.31	7.13	335	22	46	208	14	28
ETHANE	6.1	0.9	1.7	1.57	4.37	3.37	79	16	23	49	10	14
ACETYLENE	13.5	0.0	0.0	3.48	0.00	0.00	151	0	0	94	0	0
C3 + C3=	19.1	0.2	0.6	4.92	0.97	1.19	230	3	8	143	2	5
C=C=C	0.3	0.0	0.0	0.08	0.00	0.00	3	0	0	2	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	2.4	0.3	0.6	0.62	1.46	1.19	30	5	8	19	3	5
B1 + 1B	8.7	0.0	0.0	2.24	0.00	0.00	105	0	0	65	0	0
NC4 +B=1=3	15.0	1.4	3.5	3.86	6.80	6.93	187	24	46	116	15	29
TBUTENE-2	2.4	0.0	0.2	0.62	0.00	0.40	29	0	3	18	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	2.2	0.0	0.1	0.57	0.00	0.20	27	0	1	16	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.5	0.0	0.0	0.13	0.00	0.00	6	0	0	4	0	0
ISOPENTANE	13.5	1.4	3.8	3.48	6.80	7.52	167	24	50	104	15	31
PENTENE-1	0.5	0.0	0.0	0.13	0.00	0.00	6	0	0	4	0	0
2MBUT-1	1.4	0.0	0.1	0.36	0.00	0.20	17	0	1	10	0	1
NPENTANE	3.0	0.3	0.8	0.77	1.46	1.58	37	5	10	23	3	6
2MB=1=3	0.6	0.0	0.0	0.15	0.00	0.00	7	0	0	4	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140202
DATE RUN: 05 30 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVER: MYEK FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	1.7	0.0	0.2	0.44	0.00	0.40	20	0	3	13	0	2
CISPENT-2	0.8	0.0	0.1	0.21	0.00	0.20	10	0	1	6	0	1
2MBUT-2	3.3	0.0	0.3	0.85	0.00	0.59	40	0	4	25	0	2
22MBUTANE	0.2	0.1	0.5	0.05	0.49	0.99	2	2	6	2	1	4
CYPENTENE	0.4	0.0	0.0	0.10	0.00	0.00	5	0	0	3	0	0
3MPENTENE	0.2	0.0	0.0	0.05	0.00	0.00	2	0	0	1	0	0
CYPENTANE	0.3	0.0	0.1	0.08	0.00	0.20	4	0	1	2	0	1
23MBUTANE	2.7	0.2	0.6	0.70	0.97	1.19	33	3	8	21	2	5
2MPENTANE	6.1	0.6	1.3	1.57	2.91	2.57	75	10	17	47	6	10
3MPENTANE	4.0	0.4	1.2	1.03	1.94	2.38	49	7	16	31	4	10
HEXENE-1	1.1	0.0	0.2	0.28	0.00	0.40	13	0	3	8	0	2
N HEXANE	1.8	0.1	0.4	0.46	0.49	0.79	22	2	5	14	1	3
TC6=3,=2	2.5	0.0	0.3	0.64	0.00	0.59	30	0	4	19	0	2
CC6=3	0.5	0.0	0.1	0.13	0.00	0.20	6	0	1	4	0	1
2MPENTENE2	0.6	0.0	0.0	0.15	0.00	0.00	7	0	0	4	0	0
MCYP43M2C5	3.2	0.2	0.6	0.82	0.97	1.19	39	3	8	24	2	5
24MPENTANE	5.4	0.3	1.0	1.39	1.46	1.98	66	5	13	41	3	8
BENZENE	13.5	0.4	0.9	3.48	1.94	1.78	151	6	11	94	4	7
CYHEXANE	1.1	0.0	0.2	0.28	0.00	0.40	13	0	3	8	0	2
2MC6+23MC5	14.1	0.9	2.6	3.63	4.37	5.15	173	15	34	108	10	21
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.9	0.2	0.5	0.75	0.97	0.99	36	3	6	22	2	4
224MPENTAN	22.2	1.7	4.5	5.72	8.25	8.91	272	29	58	169	18	36
NHEPTANE	2.5	0.1	0.3	0.64	0.49	0.59	31	2	4	19	1	2
MCYHEXANE	1.7	0.1	0.2	0.44	0.49	0.40	20	2	3	13	1	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+23DM	4.3	0.2	0.7	1.11	0.97	1.39	53	3	9	33	2	6
234MC5	5.7	0.3	1.0	1.47	1.46	1.98	70	5	13	43	3	8
TOLUENE	15.1	0.4	1.3	3.89	1.94	2.57	171	6	15	106	4	10
23MC6+4MC7	2.8	0.1	0.4	0.72	0.49	0.79	34	2	5	21	1	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140202
DATE RUN: 05 30 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVER: HYEK FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.4	0.1	0.3	0.62	0.49	0.59	29	2	4	18	1	2
3MHEPTANE	2.6	0.1	0.3	0.67	0.49	0.59	32	2	4	20	1	2
255MC6	2.4	0.1	0.4	0.62	0.49	0.79	29	2	5	18	1	3
N OCTANE	1.1	0.0	0.1	0.26	0.00	0.20	13	0	1	8	0	1
223MC6	0.5	0.0	0.1	0.13	0.00	0.20	6	0	1	4	0	1
ETCYHEXANE	0.7	0.0	0.1	0.18	0.00	0.20	8	0	1	5	0	1
ET BENZENE	3.0	0.0	0.1	0.77	0.00	0.20	34	0	1	21	0	1
M+PXYLENE	12.1	0.1	0.5	3.12	0.49	0.99	138	2	6	86	1	4
244MC8	1.7	0.1	0.2	0.44	0.49	0.40	21	2	3	13	1	2
O XYLENE	5.1	0.1	0.3	1.31	0.49	0.59	58	2	4	36	1	2
N NONANE	1.8	0.0	0.2	0.46	0.00	0.40	22	0	3	14	0	2
IPRBENZENE	1.2	0.0	0.2	0.31	0.00	0.40	14	0	2	9	0	2
NPRBENZENE	0.6	0.0	0.0	0.15	0.00	0.00	7	0	0	4	0	0
1M3ETBENZ	5.1	0.0	0.1	1.31	0.00	0.20	59	0	1	36	0	1
135MEBENZ	2.0	0.0	0.1	0.52	0.00	0.20	23	0	1	14	0	1
1M2ETBENZ	2.1	0.0	0.4	0.54	0.00	0.79	24	0	5	15	0	3
124MBENZ	6.3	0.0	0.3	1.62	0.00	0.59	72	0	4	45	0	2
SBUBENZENE	0.7	0.0	0.2	0.18	0.00	0.40	8	0	2	5	0	2
N DECANE	0.4	0.0	0.0	0.10	0.00	0.00	5	0	0	3	0	0
123MBENZ	1.4	0.0	0.1	0.36	0.00	0.20	16	0	1	10	0	1
INDANE	0.7	0.0	0.0	0.18	0.00	0.00	8	0	0	5	0	8
13FBENZENE	0.3	0.0	0.0	0.08	0.00	0.00	3	0	0	2	0	0
NBUBENZENE	0.5	0.0	0.0	0.13	0.00	0.00	6	0	0	4	0	0
1M3PRBENZ	0.8	0.0	0.0	0.21	0.00	0.00	9	0	0	6	0	0
UNKNOWNS	29.2	0.8	1.4	7.52	3.88	2.77	337	13	17	209	8	11

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140401
DATE RUN: 05 22 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9U15R640 DRIVER: HYEK FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 40

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	485.2	26.5	48.9
GC PPMC	437.3	21.7	41.4

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	51.4	9.5	12.0	11.75	43.78	28.99	741	198	178	461	123	111
SATURATES	149.3	9.4	20.4	34.14	43.32	49.28	1928	175	271	1198	109	169
OLEFINS	123.5	1.4	3.8	28.24	6.45	9.18	1558	26	49	968	16	31
ACETYLENE	5.8	0.0	0.0	1.33	0.00	0.00	68	0	0	42	0	0
NAPTHENES	8.6	0.3	0.8	1.97	1.38	1.93	108	5	10	67	3	6
AROMATICS	73.0	1.0	3.6	16.69	4.61	8.70	865	17	44	537	11	27
BENZENE	13.7	0.4	0.9	3.13	1.84	2.17	160	7	11	100	4	7
TULUENE	17.3	0.4	1.0	3.96	1.84	2.42	205	7	12	127	4	8
C8+AROM	42.0	0.2	1.7	9.60	0.92	4.11	506	3	21	314	2	13
UNKNOWN	25.7	0.1	0.8	0.00	0.00	0.00	310	2	10	193	1	6
INDIVIDUAL COMPONENTS												
METHANE	51.4	9.5	12.0	11.75	43.78	28.99	741	198	178	461	123	111
ETHYLENE	37.7	1.1	2.7	8.62	5.07	6.52	475	20	35	296	12	22
ETHANE	10.5	1.1	1.6	2.40	5.07	3.86	142	21	22	88	13	14
ACETYLENE	5.8	0.0	0.0	1.33	0.00	0.00	68	0	0	42	0	0
C3 + C3=	41.2	0.2	0.6	9.42	0.92	1.45	520	4	8	323	2	5
C=C=C	0.0	0.1	0.1	0.00	0.46	0.24	0	2	1	0	1	1
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	4.2	0.2	0.5	0.96	0.92	1.21	55	4	7	34	2	4
B1 + IB	18.1	0.0	0.0	4.14	0.00	0.00	228	0	0	142	0	0
NC4 +B=1=3	24.4	1.2	2.9	5.58	5.53	7.00	319	23	39	198	14	24
TBUTENE-2	4.5	0.0	0.1	1.03	0.00	0.24	57	0	1	35	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	3.9	0.0	0.1	0.89	0.00	0.24	49	0	1	31	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.9	0.0	0.0	0.21	0.00	0.00	11	0	0	7	0	0
ISOPENTANE	15.5	1.3	2.8	3.54	5.99	6.76	201	24	37	125	15	23
PENTENE-1	0.6	0.0	0.0	0.14	0.00	0.00	8	0	0	5	0	0
2MBUT-1	2.1	0.0	0.0	0.48	0.00	0.00	26	0	0	16	0	0
NPENTANE	3.5	0.3	0.6	0.80	1.38	1.45	45	6	8	28	3	5
2MB=1=3	2.0	0.0	0.0	0.46	0.00	0.00	25	0	0	15	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140401
DATE RUN: 05 22 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9U158640 DRIVER: HYEK FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	2.1	0.0	0.1	0.48	0.00	0.24	26	0	1	16	0	1
CISPENT-2	0.9	0.0	0.0	0.21	0.00	0.00	11	0	0	7	0	0
2MBUT-2	4.3	0.0	0.1	0.98	0.00	0.24	54	0	1	34	0	1
22MBUTANE	0.3	0.1	0.2	0.07	0.46	0.48	4	2	3	2	1	2
CYPENTENE	0.5	0.0	0.0	0.11	0.00	0.00	6	0	0	4	0	0
3MPENTENE	0.2	0.0	0.0	0.05	0.00	0.00	3	0	0	2	0	0
CYPENTANE	0.4	0.0	0.1	0.09	0.00	0.24	5	0	1	3	0	1
23MBUTANE	2.8	0.2	0.4	0.64	0.92	0.97	36	4	5	22	2	3
2MPENTANE	7.7	0.5	1.0	1.76	2.30	2.42	99	9	13	62	6	8
3MPENTANE	4.9	0.3	0.9	1.12	1.38	2.17	63	6	12	39	3	7
HEXENE-1	1.3	0.0	0.0	0.30	0.00	0.00	16	0	0	10	0	0
N HEXANE	2.1	0.1	0.2	0.48	0.46	0.48	27	2	3	17	1	2
TC6=3,=2	2.6	0.0	0.0	0.59	0.00	0.00	33	0	0	20	0	0
CC6=3	0.6	0.0	0.0	0.14	0.00	0.00	8	0	0	5	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	4.5	0.2	0.4	1.03	0.92	0.97	57	4	5	35	2	3
24MPENTANE	6.1	0.3	0.7	1.39	1.38	1.69	79	6	9	49	3	6
BENZENE	13.7	0.4	0.9	3.13	1.84	2.17	160	7	11	100	4	7
CYHEXANE	1.2	0.0	0.0	0.27	0.00	0.00	15	0	0	9	0	0
2MC6+23MC5	14.8	0.8	1.9	3.38	3.69	4.59	190	15	25	118	9	16
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.3	0.2	0.4	0.75	0.92	0.97	42	4	5	26	2	3
224MPENTAN	22.1	1.7	3.4	5.05	7.83	8.21	284	32	45	176	20	28
NHEPTANE	2.5	0.1	0.2	0.57	0.46	0.48	32	2	3	20	1	2
MCYHEXANE	1.9	0.1	0.2	0.43	0.46	0.48	24	2	3	15	1	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	4.5	0.2	0.5	1.03	0.92	1.21	58	4	7	36	2	4
234MC5	4.9	0.3	0.7	1.12	1.38	1.69	63	6	9	39	3	6
TOLUENE	17.3	0.4	1.0	3.96	1.84	2.42	205	7	12	127	4	8
23MC6+4MC7	2.6	0.1	0.3	0.59	0.46	0.72	33	2	4	21	1	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140401
DATE RUN: 05 22 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9H158640 DRIVEN: HYEK FUEL: WINTER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG 1	2	3		BAG 1	2	3		BAG 1	2	3		BAG 1	2	3	
34MHEXANE	2.5	0.1	0.2		0.57	0.46	0.48		32	2	3		20	1	2	
3MHEPTANE	2.7	0.1	0.2		0.62	0.46	0.48		35	2	3		22	1	2	
255MC6	2.4	0.1	0.3		0.55	0.46	0.72		31	2	4		19	1	2	
N OCTANE	1.2	0.0	0.1		0.27	0.00	0.24		15	0	1		10	0	1	
223MC6	0.3	0.0	0.0		0.07	0.00	0.00		4	0	0		2	0	0	
ETCYHEXANE	0.6	0.0	0.1		0.14	0.00	0.24		8	0	1		5	0	1	
ET BENZENE	3.6	0.0	0.1		0.82	0.00	0.24		43	0	1		27	0	1	
M+PXYLENE	13.1	0.1	0.4		3.00	0.46	0.97		156	2	5		97	1	3	
2+4MC8	1.6	0.1	0.2		0.37	0.46	0.48		21	2	3		13	1	2	
O XYLENE	5.5	0.1	0.2		1.26	0.46	0.48		66	2	2		41	1	2	
N NONANE	1.6	0.0	0.7		0.37	0.00	0.48		21	0	3		13	0	2	
IPRBENZENE	1.1	0.0	0.1		0.25	0.00	0.24		13	0	1		8	0	1	
NPRBENZENE	0.6	0.0	0.0		0.14	0.00	0.00		7	0	0		4	0	0	
1M3ETBENZ	5.3	0.0	0.2		1.21	0.00	0.48		64	0	2		40	0	2	
135MEBENZ	1.8	0.0	0.3		0.41	0.00	0.72		22	0	4		13	0	2	
1M2ETBENZ	1.7	0.0	0.1		0.39	0.00	0.24		20	0	1		13	0	1	
124MBENZ	5.7	0.0	0.2		1.30	0.00	0.48		68	0	2		43	0	2	
SBUBENZENE	0.6	0.0	0.1		0.14	0.00	0.24		7	0	1		5	0	1	
N DECANE	0.3	0.0	0.0		0.07	0.00	0.00		4	0	0		2	0	0	
123MBENZ	1.2	0.0	0.0		0.27	0.00	0.00		14	0	0		9	0	0	
INDANE	0.5	0.0	0.0		0.11	0.00	0.00		6	0	0		4	0	0	
13EBENZENE	0.2	0.0	0.0		0.05	0.00	0.00		2	0	0		2	0	0	
NBUBENZENE	0.5	0.0	0.0		0.11	0.00	0.00		6	0	0		4	0	0	
1M3PRBENZ	0.6	0.0	0.0		0.14	0.00	0.00		7	0	0		5	0	0	
UNKNOWNS	25.7	0.1	0.8		5.68	0.46	1.93		310	2	10		193	1	6	

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140402
DATE RUN: 05 31 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVER: HYEK FUEL: WINTER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 40

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	643.3	22.2	66.9
GC PPMC	614.3	18.9	57.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	88.1	6.8	11.0	14.34	35.98	19.20	1228	124	161	763	77	100
SATURATES	211.8	8.3	30.8	34.48	43.92	53.75	2644	135	403	1643	84	250
OLEFINS	144.3	1.7	6.7	23.49	8.99	11.69	1759	27	86	1093	17	53
ACETYLENE	19.7	0.0	0.0	3.21	0.00	0.00	223	0	0	139	0	0
NAPTHENES	11.4	0.2	1.4	1.86	1.06	2.44	139	3	18	86	2	11
AROMATICS	98.0	1.0	5.7	15.95	5.29	9.95	1122	15	68	697	9	43
BENZENE	20.3	0.4	1.2	3.30	2.12	2.09	230	6	14	143	4	9
TOLUENE	22.9	0.3	1.7	3.73	1.59	2.97	262	4	20	163	3	13
C8+AROM	54.8	0.3	2.8	8.92	1.59	4.89	638	5	34	396	3	21
UNKNOWN	41.0	0.9	1.7	0.00	0.00	0.00	478	14	21	297	9	13
INDIVIDUAL COMPONENTS												
METHANE	88.1	6.8	11.0	14.34	35.98	19.20	1228	124	161	763	77	100
ETHYLENE	48.1	1.5	3.9	7.83	7.94	6.81	586	24	50	364	15	31
ETHANE	12.9	1.0	1.6	2.10	5.29	2.79	169	17	22	105	11	14
ACETYLENE	19.7	0.0	0.0	3.21	0.00	0.00	223	0	0	139	0	0
C3 + C3=	42.2	0.2	1.0	6.87	1.06	1.75	514	3	13	320	2	8
C=C=C	0.6	0.0	0.1	0.10	0.00	0.17	7	0	1	4	0	1
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	4.4	0.2	0.7	0.72	1.06	1.22	56	3	9	35	2	6
B1 + IB	19.3	0.0	0.0	3.14	0.00	0.00	235	0	0	146	0	0
NC4 +B=1=3	28.4	1.2	4.3	4.62	6.35	7.50	359	20	57	223	12	35
TBUTENE-2	4.7	0.0	0.2	0.77	0.00	0.35	57	0	3	36	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	4.0	0.0	0.2	0.65	0.00	0.35	49	0	3	30	0	2
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.9	0.0	0.0	0.15	0.00	0.00	11	0	0	7	0	0
ISOPENTANE	21.0	1.1	4.3	3.42	5.82	7.50	263	18	57	164	11	35
PENTENE-1	0.8	0.0	0.0	0.13	0.00	0.00	10	0	0	6	0	0
2MBUT-1	2.7	0.0	0.0	0.44	0.00	0.00	33	0	0	20	0	0
NPENTANE	4.6	0.2	0.9	0.75	1.06	1.57	58	3	12	36	2	7
2MB=1=3	2.5	0.0	0.0	0.41	0.00	0.00	30	0	0	18	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140402
DATE RUN: 05 31 79
CAR: 1979 DODGE ASPEN CALIF. VIN: ML29C9H158640 DRIVER: HYEK FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT-2	2.9	0.8	0.2	0.47	0.00	0.35	35	0	3	22	0	2
CISPENT-2	1.3	0.0	0.1	0.21	0.00	0.17	16	0	1	10	0	1
2MBUT-2	5.8	0.0	0.3	0.94	0.00	0.52	71	0	4	44	0	2
22MBUTANE	0.2	0.1	0.1	0.03	0.53	0.17	2	2	1	2	1	1
CYPENTENE	0.6	0.8	0.1	0.10	0.00	0.17	7	0	1	4	0	1
3MPENTENE	0.3	0.0	0.0	0.05	0.00	0.00	4	0	0	2	0	0
CYPENTANE	0.5	0.0	0.1	0.08	0.00	0.17	6	0	1	4	0	1
23MBUTANE	4.3	0.2	0.6	0.70	1.06	1.05	54	3	8	33	2	5
2MPENTANE	9.7	0.3	1.5	1.58	1.59	2.62	121	5	20	75	3	12
3MPENTANE	6.2	0.5	1.3	1.01	2.65	2.27	77	8	17	48	5	11
HEXENE-1	1.5	0.0	0.2	0.24	0.00	0.35	18	0	3	11	0	2
N HEXANE	2.8	0.2	0.5	0.46	1.06	0.87	35	3	7	22	2	4
TC6=3,=2	4.2	0.0	0.3	0.68	0.00	0.52	51	0	4	32	0	2
CC6=3	0.9	0.0	0.1	0.15	0.00	0.17	11	0	1	7	0	1
2MPENTENE2	1.0	0.0	0.0	0.16	0.00	0.00	12	0	0	8	0	0
MCYP4,3M2C5	5.5	0.1	0.7	0.90	0.53	1.22	67	2	9	42	1	6
24MPENTANE	8.9	0.3	1.2	1.45	1.59	2.09	111	5	16	69	3	10
BENZENE	20.3	0.4	1.2	3.30	2.12	2.09	230	6	14	143	4	9
CYHEXANE	1.5	0.0	0.2	0.24	0.00	0.35	18	0	3	11	0	2
2MC6+23MC5	23.5	0.6	3.0	3.83	3.17	5.24	292	10	39	182	6	24
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	4.8	0.1	0.6	0.78	0.53	1.05	60	2	8	37	1	5
224MPENTAN	35.9	1.2	5.2	5.84	6.35	9.08	446	19	68	277	12	42
MHEPTANE	4.2	0.1	0.4	0.68	0.53	0.78	52	2	5	32	1	3
MCYHEXANE	2.9	0.1	0.3	0.47	0.53	0.52	35	2	4	22	1	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	6.9	0.2	0.8	1.12	1.06	1.40	86	3	10	53	2	6
234MC5	9.3	0.3	1.2	1.51	1.59	2.09	115	5	16	72	3	10
TOLUENE	22.9	0.3	1.7	3.73	1.59	2.97	262	4	20	163	3	13
23MC6+4MC7	4.3	0.1	0.5	0.70	0.53	0.87	53	2	7	33	1	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140402
DATE RUN: 05 31 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVER: MYER FUEL: WINTER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
3AMHEXANE	3.7	0.1	0.4	0.60	0.53	0.70	46	2	5	29	1	3
3MHEPTANE	4.1	0.1	0.4	0.67	0.53	0.70	51	2	5	32	1	3
255MC6	3.8	0.1	0.5	0.62	0.53	0.87	47	2	6	29	1	4
N OCTANE	1.8	0.0	0.2	0.29	0.00	0.35	22	0	3	14	0	2
223MC6	0.8	0.0	0.1	0.13	0.00	0.17	10	0	1	6	0	1
ETCYHEXANE	1.0	0.0	0.1	0.16	0.00	0.17	12	0	1	8	0	1
ET BENZENE	4.3	0.1	0.2	0.70	0.53	0.35	50	2	2	31	1	2
M+PXYLENE	16.1	0.1	0.8	2.62	0.53	1.40	186	2	10	115	1	6
24MC8	2.3	0.1	0.2	0.37	0.53	0.35	28	2	3	18	1	2
O XYLENE	6.8	0.1	0.4	1.11	0.53	0.70	78	2	5	49	1	3
N NONANE	2.5	0.0	0.3	0.41	0.00	0.52	31	0	4	19	0	2
IPRBENZENE	1.7	0.0	0.2	0.28	0.00	0.35	20	0	2	12	0	2
NPRBENZENE	0.8	0.0	0.0	0.13	0.00	0.00	9	0	0	6	0	0
1M3ETBENZ	6.6	0.0	0.1	1.07	0.00	0.17	77	0	1	48	0	1
135MEBENZ	2.4	0.0	0.1	0.39	0.00	0.17	28	0	1	17	0	1
1M2ETBENZ	2.8	0.0	0.5	0.46	0.00	0.87	32	0	6	20	0	4
124MBENZ	7.8	0.0	0.3	1.27	0.00	0.52	91	0	4	56	0	2
SBUBENZENE	0.9	0.0	0.2	0.15	0.00	0.35	10	0	2	7	0	2
N DECANE	0.5	0.0	0.0	0.08	0.00	0.00	6	0	0	4	0	0
123MBENZ	1.7	0.0	0.0	0.28	0.00	0.00	20	0	0	12	0	0
INDANE	0.8	0.0	0.0	0.13	0.00	0.00	9	0	0	6	0	0
13EBENZENE	0.5	0.0	0.0	0.08	0.00	0.00	6	0	0	4	0	0
NBUBENZENE	0.7	0.0	0.0	0.11	0.00	0.00	8	0	0	5	0	0
1M3PRBENZ	0.9	0.0	0.0	0.15	0.00	0.00	10	0	0	7	0	0
UNKNOWNS	41.0	0.9	1.7	6.67	4.76	2.97	478	14	21	297	9	13

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140601
DATE RUN: 04 25 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVER: HYEK FUEL: SUNNER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 60

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	158.0	26.3	39.6
GC PPMC	156.6	19.9	34.9

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
				MAJOR COMPONENTS								
METHANE	28.7	8.1	10.2	18.33	40.70	29.23	377	190	143	234	118	89
SATURATES	52.0	9.5	16.6	33.21	47.74	47.56	611	199	209	380	124	130
OLEFINS	14.8	1.1	2.8	9.45	5.53	8.02	170	23	34	106	14	21
ACETYLENE	9.6	0.0	0.0	6.13	0.00	0.00	102	0	0	64	0	0
NAPTHENES	2.2	0.0	0.5	1.40	0.00	1.43	25	0	6	16	0	4
AROMATICS	39.6	0.9	4.1	25.29	4.52	11.75	427	17	47	265	11	29
BENZENE	5.6	0.5	1.0	3.58	2.51	2.87	60	10	11	37	6	7
TOLUENE	11.1	0.2	1.2	7.09	1.01	3.44	120	4	14	74	2	9
C8+AROM	22.9	0.2	1.9	14.62	1.01	5.44	251	4	22	156	2	14
UNKNOWN	9.7	0.3	0.7	0.00	0.00	0.00	107	6	8	66	4	5
				INDIVIDUAL COMPONENTS								
METHANE	28.7	8.1	10.2	18.33	40.70	29.23	377	190	143	234	118	89
ETHYLENE	7.7	0.9	2.1	4.92	4.52	6.02	88	18	26	55	11	16
ETHANE	1.8	0.9	1.3	1.15	4.52	3.72	22	20	17	14	12	11
ACETYLENE	9.6	0.0	0.0	6.13	0.00	0.00	102	0	0	64	0	0
C3 + C3=	2.9	0.1	0.4	1.85	0.50	1.15	33	2	5	21	1	3
C=C=C	0.0	0.0	0.1	0.00	0.00	0.29	0	0	1	0	0	1
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.3	0.1	0.2	0.19	0.50	0.57	4	2	3	2	1	2
B1 + 1B	1.1	0.0	0.0	0.70	0.00	0.00	13	0	0	8	0	0
NC4 +B=1=3	3.9	1.2	2.4	2.49	6.03	6.88	46	25	31	29	16	19
TBUTENE-2	0.4	0.0	0.1	0.26	0.00	0.29	5	0	1	3	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.3	0.0	0.1	0.19	0.00	0.29	3	0	1	2	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	3.2	1.0	1.8	2.04	5.03	5.16	38	21	23	23	13	14
PENTENE-1	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	0.8	0.2	0.3	0.51	1.01	0.86	9	4	4	6	3	2
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140601
DATE RUN: 04 25 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9U15R640 DRIVEN: MYER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.3	0.0	0.0	0.19	0.00	0.00	3	0	0	2	0	0
CISPENT-2	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.6	0.0	0.0	0.38	0.00	0.00	7	0	0	4	0	0
22MBUTANE	0.1	0.1	0.1	0.06	0.50	0.29	1	2	1	1	1	1
CYPENTENE	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
23MBUTANE	0.8	0.2	0.1	0.51	1.01	0.86	9	4	4	6	3	2
2MPENTANE	1.6	0.3	0.6	1.02	1.51	1.72	19	6	8	12	4	5
3MPENTANE	1.3	0.3	0.5	0.83	1.51	1.43	15	6	6	9	4	4
HEXENE-1	0.3	0.0	0.0	0.19	0.00	0.00	3	0	0	2	0	0
N HEXANE	0.8	0.1	0.2	0.51	0.50	0.57	9	2	3	6	1	2
TC6=3,=2	0.7	0.0	0.0	0.45	0.00	0.00	8	0	0	5	0	0
CC6=3	0.1	0.0	0.0	0.06	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.0	0.1	0.0	0.00	0.50	0.00	0	2	0	0	1	0
MCYP4JM2C5	1.1	0.0	0.3	0.70	0.00	0.86	13	0	4	8	0	2
24MPENTANE	2.3	0.3	0.6	1.47	1.51	1.72	27	6	8	17	4	5
BENZENE	5.6	0.5	1.0	3.58	2.51	2.87	68	10	11	37	6	7
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6=23MC5	5.3	0.7	1.3	3.36	3.52	3.72	62	15	16	39	9	10
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	1.9	0.2	0.4	1.21	1.01	1.15	22	4	5	14	3	3
224MPENTAN	11.2	1.7	3.1	7.15	8.54	8.88	131	35	39	81	22	24
NHEPTANE	1.7	0.2	0.3	1.09	1.01	0.86	20	4	4	12	3	2
MCYHEXANE	0.5	0.0	0.1	0.32	0.00	0.29	6	0	1	4	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6=23M	2.4	0.3	0.6	1.53	1.51	1.72	28	6	7	17	4	5
234MC5	2.7	0.6	0.6	1.72	3.02	1.72	32	13	7	20	8	5
TOLUENE	11.1	0.2	1.2	7.89	1.01	3.44	120	4	14	74	2	9
23MC6=4MC7	1.5	0.2	0.3	0.96	1.01	0.86	18	4	4	11	3	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 840601
DATE RUN: 04 25 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL24C9R15R640 DRIVER: HYCK FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
34MHEXANE		1.8	0.2	0.3		1.15	1.01	0.56		21	4	4		13	3	2
3MHEPTANE		1.6	0.2	0.3		1.02	1.01	0.00		19	4	4		12	3	2
25DMC6		1.7	0.2	0.4		1.09	1.01	1.15		20	4	5		12	3	3
N OCTANE		1.0	0.2	0.2		0.64	1.01	0.57		12	4	2		7	3	2
223MC6		0.2	0.0	0.1		0.13	0.00	0.28		2	0	1		1	0	1
ETCYHEXANE		0.5	0.0	0.1		0.32	0.00	0.28		6	0	1		4	0	1
ET BENZENE		1.8	0.0	0.1		1.15	0.00	0.28		20	0	1		12	0	1
M+PXYLENE		7.4	0.1	0.6		4.73	0.50	1.72		80	2	7		50	1	4
244MC8		1.1	0.1	0.2		0.70	0.50	0.57		13	2	2		8	1	2
O XYLENE		3.0	0.1	0.2		1.92	0.50	0.57		33	2	2		20	1	1
N NONANE		0.8	0.0	0.2		0.51	0.00	0.57		9	0	2		6	0	2
IPRBENZENE		0.6	0.0	0.1		0.38	0.00	0.29		7	0	1		4	0	1
NPRBENZENE		0.4	0.0	0.0		0.26	0.00	0.00		4	0	0		3	0	0
1M3ETBENZ		2.5	0.0	0.2		1.60	0.00	0.57		27	0	2		17	0	1
135MEBENZ		1.1	0.0	0.0		0.70	0.00	0.00		12	0	0		7	0	0
1M2ETBENZ		1.0	0.0	0.3		0.64	0.00	0.86		11	0	4		7	0	2
124MBENZ		3.4	0.0	0.3		2.17	0.00	0.86		37	0	4		23	0	2
SBUBENZENE		0.3	0.0	0.1		0.19	0.00	0.29		3	0	1		2	0	1
N DECANE		0.2	0.0	0.0		0.13	0.00	0.00		2	0	0		1	0	0
123MBENZ		0.8	0.0	0.0		0.51	0.00	0.00		9	0	0		5	0	0
INDANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
1,3EBENZENE		0.1	0.0	0.0		0.06	0.00	0.00		1	0	0		1	0	0
NBUBENZENE		0.2	0.0	0.0		0.13	0.00	0.00		2	0	0		1	0	0
1M3PRBENZ		0.3	0.0	0.0		0.19	0.00	0.00		3	0	0		2	0	0
UNKNOWNS		9.7	0.3	0.7		6.19	1.51	2.01		107	6	8		66	4	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140602
DATE RUN: 05 21 79
CAR: 1979 DODGE ASPEN CALIF. VIN: ML29C9H158640 DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 60

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	225.7	26.3	86.1
GC PPMC	199.7	22.1	57.8

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	25.5	8.6	12.4	12.77	38.91	21.45	375	175	180	233	109	112
SATURATES	80.7	9.8	28.0	40.41	44.34	48.44	1062	174	363	660	111	226
OLEFINS	15.9	1.1	5.5	7.96	4.98	9.52	204	20	70	127	12	43
ACETYLENE	10.2	0.0	0.0	5.11	0.00	0.00	122	0	0	76	0	0
NAPTHENES	4.8	0.3	1.0	2.40	1.36	1.73	62	5	13	38	3	8
AROMATICS	51.4	1.6	9.0	25.74	7.24	15.57	621	27	107	386	17	67
BENZENE	5.3	0.6	1.9	2.65	2.71	3.29	63	10	22	39	6	14
TOLUENE	17.7	0.6	3.0	8.86	2.71	5.19	214	10	36	133	6	22
C8+AROM	28.4	0.4	4.1	14.22	1.81	7.09	349	7	50	217	4	31
UNKNOWN	11.2	0.7	1.9	0.00	0.00	0.00	136	12	23	86	7	14
INDIVIDUAL COMPONENTS												
METHANE	25.5	8.6	12.4	12.77	38.91	21.45	375	175	180	233	109	112
ETHYLENE	7.0	1.1	3.4	3.51	4.98	5.88	90	20	43	56	12	27
ETHANE	1.6	1.1	1.9	0.80	4.98	3.29	22	21	26	14	13	16
ACETYLENE	10.2	0.0	0.0	5.11	0.00	0.00	122	0	0	76	0	0
C3 + C3=	3.0	0.0	0.9	1.50	0.00	1.56	39	0	11	24	0	7
C=C=C	0.0	0.0	0.2	0.00	0.00	0.35	0	0	2	0	0	1
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.2	0.1	0.2	0.10	0.45	0.35	3	2	3	2	1	2
B1 + I8	1.1	0.0	0.0	0.55	0.00	0.00	14	0	0	9	0	0
NC4 +B=1=3	2.9	0.8	2.5	1.45	3.62	4.33	39	15	33	24	9	20
TBUTENE-2	0.3	0.0	0.2	0.15	0.00	0.35	4	0	3	2	0	2
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.3	0.0	0.1	0.15	0.00	0.17	4	0	1	2	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	3.3	0.9	2.4	1.65	4.07	4.15	44	17	31	27	10	19
PENTENE-1	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	1.0	0.2	0.5	0.50	0.90	0.87	13	4	7	8	2	4
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140602
DATE RUN: 05 21 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVER: MYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.5	0.0	0.1	0.25	0.00	0.17	6	0	1	4	0	1
CISPENT-2	0.2	0.0	0.0	0.10	0.00	0.00	3	0	0	2	0	0
2MBUT-2	1.0	0.0	0.2	0.50	0.00	0.35	13	0	3	8	0	2
22MBUTANE	0.6	0.1	0.1	0.30	0.45	0.17	8	2	1	5	1	1
CYPENTENE	0.1	0.0	0.1	0.05	0.00	0.17	1	0	1	1	0	1
3MPENTENE	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.1	0.0	0.1	0.05	0.00	0.17	1	0	1	1	0	1
23MBUTANE	1.4	0.2	0.5	0.70	0.90	0.87	18	4	6	11	2	4
2MPENTANE	2.7	0.3	1.1	1.35	1.36	1.90	36	5	14	22	3	9
3MPENTANE	2.0	0.3	0.8	1.00	1.36	1.38	26	5	10	16	3	6
HEXENE-1	0.4	0.0	0.1	0.20	0.00	0.17	5	0	1	3	0	1
N HEXANE	1.4	0.2	0.5	0.70	0.90	0.87	18	4	6	11	2	4
TC6=3,=2	1.4	0.0	0.2	0.70	0.00	0.35	18	0	3	11	0	2
CC6=3	0.3	0.0	0.0	0.15	0.00	0.00	4	0	0	2	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	2.2	0.2	0.5	1.10	0.90	0.87	28	4	6	18	2	4
24MPENTANE	4.2	0.4	1.2	2.10	1.81	2.08	55	7	16	34	5	10
BENZENE	5.3	0.6	1.9	2.65	2.71	3.29	63	10	22	39	6	14
CYHEXANE	1.0	0.0	0.0	0.50	0.00	0.00	13	0	0	8	0	0
2MC6+23MC5	9.5	0.8	2.6	4.76	3.62	4.50	125	15	34	77	9	21
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.3	0.3	0.9	1.65	1.36	1.56	43	5	12	27	3	7
224MPENTAN	19.3	2.1	5.9	9.66	9.50	10.21	253	38	76	157	24	47
MHEPTANE	3.2	0.2	0.7	1.60	0.90	1.21	42	4	9	26	2	6
MCYHEXANE	0.8	0.1	0.2	0.40	0.45	0.35	10	2	3	6	1	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	4.3	0.4	1.1	2.15	1.81	1.90	56	7	14	35	5	9
234MC5	4.6	0.4	1.2	2.30	1.01	2.08	60	7	15	37	5	10
TOLUENE	17.7	0.6	3.0	8.86	2.71	5.19	214	10	36	133	6	22
23MC6+4MC7	2.4	0.2	0.6	1.20	0.90	1.04	31	4	8	20	2	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140602
DATE RUN: 05 21 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.9	0.2	0.7	1.45	0.90	1.21	38	4	9	24	2	6
3MHEPTANE	2.6	0.2	0.7	1.30	0.90	1.21	34	4	9	21	2	6
255MC6	2.6	0.2	0.7	1.30	0.90	1.21	34	4	9	21	2	6
N OCTANE	1.6	0.1	0.4	0.80	0.45	0.69	21	2	5	13	1	3
223MC6	0.4	0.0	0.1	0.20	0.00	0.17	5	0	1	3	0	1
ETCYHEXANE	0.7	0.0	0.2	0.35	0.00	0.35	9	0	3	6	0	2
ET BENZENE	2.5	0.1	0.3	1.25	0.45	0.52	30	2	4	19	1	2
M+PXYLENE	10.2	0.2	1.4	5.11	0.90	2.42	124	3	17	77	2	10
2+4MC8	1.5	0.1	0.4	0.75	0.45	0.69	20	2	5	12	1	3
O XYLENE	4.0	0.1	0.6	2.00	0.45	1.04	49	2	7	30	1	4
N NONANE	1.0	0.0	0.3	0.50	0.00	0.52	13	0	4	8	0	2
IPRBENZENE	0.8	0.0	0.3	0.40	0.00	0.52	10	0	4	6	0	2
NPRBENZENE	0.6	0.0	0.1	0.30	0.00	0.17	7	0	1	5	0	1
1M3ETBENZ	2.8	0.0	0.2	1.40	0.00	0.35	34	0	2	21	0	1
135MEBENZ	1.2	0.0	0.3	0.60	0.00	0.52	15	0	4	9	0	2
1M2ETBENZ	1.1	0.0	0.4	0.55	0.00	0.69	13	0	5	8	0	3
124MBENZ	3.4	0.0	0.4	1.70	0.00	0.69	42	0	5	26	0	3
SBUBENZENE	0.3	0.0	0.1	0.15	0.00	0.17	4	0	1	2	0	1
N DECANE	0.2	0.0	0.0	0.10	0.00	0.00	3	0	0	2	0	0
123MBENZ	0.6	0.0	0.0	0.30	0.00	0.00	7	0	0	5	0	0
INDANE	0.4	0.0	0.0	0.20	0.00	0.00	5	0	0	3	0	0
13EBENZENE	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
NBUBENZENE	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.3	0.0	0.0	0.15	0.00	0.00	4	0	0	2	0	0
UNKNOWNS	11.2	0.7	1.9	5.61	3.17	3.29	138	12	23	86	7	14

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140701
DATE RUN: 04 26 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 70

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	93.8	25.7	51.6
GC PPMC	88.3	27.7	36.2

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	24.2	9.0	8.7	27.41	32.49	24.03	325	141	150	202	87	93
SATURATES	28.7	9.8	19.5	32.50	35.38	53.87	345	137	301	215	85	187
OLEFINS	8.6	1.1	1.7	9.74	3.97	4.70	101	15	26	63	9	16
ACETYLENE	3.0	0.0	0.0	3.40	0.00	0.00	33	0	0	20	0	0
NAPTHENES	1.1	0.3	0.6	1.25	1.08	1.66	13	4	9	8	3	6
AROMATICS	18.7	5.5	4.4	21.18	19.86	12.15	206	71	62	128	44	39
BENZENE	3.2	0.7	0.9	3.62	2.53	2.49	35	9	13	22	6	8
TOLUENE	5.4	0.9	1.5	6.12	3.25	4.14	60	12	21	37	7	13
C8+AROM	10.1	3.9	2.0	11.44	14.08	5.52	113	51	29	70	32	18
UNKNOWN	4.0	2.0	1.3	0.00	0.00	0.00	45	26	19	28	16	12
INDIVIDUAL COMPONENTS												
METHANE	24.2	9.0	8.7	27.41	32.49	24.03	325	141	150	202	87	93
ETHYLENE	4.8	0.9	1.3	5.44	3.25	3.59	56	12	20	35	8	12
ETHANE	1.3	0.9	1.0	1.47	3.25	2.76	16	13	16	10	8	10
ACETYLENE	3.0	0.0	0.0	3.40	0.00	0.00	33	0	0	20	0	0
C3 + C3=	2.0	0.1	0.2	2.27	0.36	0.55	23	1	3	15	1	2
C=C=C	0.0	0.1	0.0	0.00	0.36	0.00	0	1	0	0	1	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.3	0.1	0.2	0.34	0.36	0.55	4	1	3	2	1	2
B1 + IB	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NC4 +B=1=3	3.0	1.2	2.3	3.40	4.33	6.35	37	17	36	23	11	22
TBUTENE-2	0.2	0.0	0.0	0.23	0.00	0.00	2	0	0	1	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.0	0.23	0.00	0.00	2	0	0	1	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	2.0	1.1	2.1	2.27	3.97	5.80	24	15	33	15	10	20
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	0.5	0.2	0.4	0.57	0.72	1.10	6	3	6	4	2	4
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140701
DATE RUN: 04 26 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVER: MYER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.2	0.0	0.0	0.23	0.00	0.00	2	0	0	1	0	0
CISPENT-2	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.3	0.0	0.1	0.34	0.00	0.28	4	0	2	2	0	1
22MBUTANE	0.3	0.1	0.3	0.34	0.36	0.83	4	1	5	2	1	3
CYPENTENE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.1	0.1	0.11	0.36	0.28	1	1	2	1	1	1
23MBUTANE	0.5	0.2	0.4	0.57	0.72	1.10	6	3	6	4	2	4
2MPENTANE	1.0	0.3	0.8	1.13	1.08	2.21	12	4	12	7	3	8
3MPENTANE	0.7	0.3	0.8	0.79	1.08	2.21	8	4	12	5	3	8
HEXENE-1	0.2	0.0	0.0	0.23	0.00	0.00	2	0	0	1	0	0
N HEXANE	0.5	0.1	0.3	0.57	0.36	0.83	6	1	5	4	1	3
TC6=3,=2	0.3	0.0	0.1	0.34	0.00	0.28	4	0	2	2	0	1
CC6=3	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	0.6	0.1	0.3	0.68	0.36	0.83	7	1	5	4	1	3
24MPENTANE	1.2	0.4	0.8	1.36	1.44	2.21	14	6	12	9	3	8
BENZENE	3.2	0.7	0.9	3.62	2.53	2.49	35	9	13	22	6	8
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	2.6	0.7	1.7	2.94	2.53	4.70	31	10	26	19	6	16
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.9	0.3	0.6	1.02	1.08	1.66	11	4	9	7	3	6
224MPENTAN	5.7	1.9	3.8	6.46	6.86	10.50	68	26	58	42	16	36
NHEPTANE	0.8	0.2	0.5	0.91	0.72	1.38	10	3	8	6	2	5
MCYHEXANE	0.2	0.0	0.1	0.23	0.00	0.28	2	0	2	1	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.2	0.3	0.7	1.36	1.08	1.93	14	4	11	9	3	7
234MC5	1.3	0.3	0.7	1.47	1.08	1.93	16	4	11	10	3	7
TOLUENE	5.4	0.9	1.5	6.12	3.25	4.14	60	12	21	37	7	13
23MC6+4MC7	0.8	0.2	0.4	0.91	0.72	1.10	10	3	6	6	2	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140701
DATE RUN: 04 26 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVEN: MYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	0.9	0.2	0.4	1.02	0.72	1.10	11	3	6	7	2	4
3MHEPTANE	0.8	0.2	0.4	0.91	0.72	1.10	10	3	6	6	2	4
255MC6	0.8	0.2	0.4	0.91	0.72	1.10	10	3	6	6	2	4
N OCTANE	0.4	0.1	0.2	0.45	0.36	0.55	5	1	3	3	1	2
223MC6	0.1	0.0	0.1	0.11	0.00	0.28	1	0	2	1	0	1
ETCYHEXANE	0.2	0.1	0.1	0.23	0.36	0.28	2	1	2	1	1	1
ET BENZENE	0.9	0.2	0.1	1.02	0.72	0.28	10	3	1	6	2	1
M+PXYLENE	3.4	1.0	0.6	3.85	3.61	1.66	38	13	9	23	8	5
244MC8	0.6	0.2	0.2	0.68	0.72	0.55	7	3	3	4	2	2
O XYLENE	1.4	0.4	0.3	1.59	1.44	0.83	16	5	4	10	3	3
N NONANE	0.4	0.1	0.0	0.45	0.36	0.00	5	1	0	3	1	0
IPRBENZENE	0.3	0.1	0.2	0.34	0.36	0.55	3	1	3	2	1	2
NPRBENZENE	0.2	0.0	0.1	0.23	0.00	0.28	2	0	1	1	0	1
1M3ETBENZ	1.1	0.5	0.0	1.25	1.81	0.00	12	7	0	8	4	0
135MEBENZ	0.5	0.2	0.2	0.57	0.72	0.55	6	3	3	3	2	2
1M2ETBENZ	0.5	0.2	0.3	0.57	0.72	0.83	6	3	4	3	2	3
124MBENZ	1.4	1.0	0.2	1.59	3.61	0.55	16	13	3	10	8	2
SBUBENZENE	0.1	0.1	0.0	0.11	0.36	0.00	1	1	0	1	1	0
N DECANE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.3	0.2	0.0	0.34	0.72	0.00	3	3	0	2	2	0
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1M3PRBENZ	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
UNKNOWNS	4.0	2.0	1.3	4.53	7.22	3.59	45	26	19	28	16	12

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140702
DATE RUN: 05 18 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVER: MYEK FUEL: LR24867

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 75

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	384.7	26.4	52.4
GC PPMC	359.7	22.4	43.7

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	35.1	10.3	13.6	9.76	45.98	31.12	502	203	200	312	126	125
SATURATES	160.4	9.1	18.1	44.59	40.63	41.42	2052	161	239	1275	100	148
OLEFINS	25.2	1.2	3.5	7.01	5.36	8.01	315	21	45	196	13	28
ACETYLENE	10.4	0.0	0.0	2.89	0.00	0.00	121	0	0	75	0	0
NAPTHENES	8.8	0.2	0.6	2.45	0.89	1.37	110	3	8	68	2	5
AROMATICS	94.9	1.3	6.3	26.38	5.80	14.42	1114	21	76	692	13	47
BENZENE	8.7	0.5	1.6	2.42	2.23	3.66	101	8	19	63	5	12
TOLUENE	32.0	0.5	1.9	8.90	2.23	4.35	375	8	23	233	5	14
C8+AROM	54.2	0.3	2.8	15.07	1.34	6.41	646	5	34	402	3	21
UNKNOWN	24.9	0.3	1.6	0.00	0.00	0.00	298	5	20	185	3	12
INDIVIDUAL COMPONENTS												
METHANE	35.1	10.3	13.6	9.76	45.98	31.12	502	203	200	312	126	125
ETHYLENE	10.9	1.0	2.5	3.03	4.46	5.72	136	17	32	85	11	20
ETHANE	2.1	1.1	1.6	0.58	4.91	3.66	28	20	22	17	13	14
ACETYLENE	10.4	0.0	0.0	2.89	0.00	0.00	121	0	0	75	0	0
C3 + C3=	4.8	0.2	0.7	1.33	0.89	1.60	60	3	9	37	2	6
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.5	0.1	0.2	0.14	0.45	0.46	6	2	3	4	1	2
B1 + 1B	1.9	0.0	0.0	0.53	0.00	0.00	24	0	0	15	0	0
NC4 +B=1=3	6.3	0.8	1.8	1.75	3.57	4.12	82	14	24	51	9	15
TBUTENE-2	0.6	0.0	0.1	0.17	0.00	0.23	7	0	1	5	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.5	0.0	0.1	0.14	0.00	0.23	6	0	1	4	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.2	0.0	0.0	0.06	0.00	0.00	2	0	0	2	0	0
ISOPENTANE	7.1	0.6	1.6	1.97	3.57	3.66	91	14	21	57	9	13
PENTENE-1	0.2	0.0	0.0	0.06	0.00	0.00	2	0	0	2	0	0
2MBUT-1	0.3	0.0	0.0	0.08	0.00	0.00	4	0	0	2	0	0
NPENTANE	1.6	0.2	0.3	0.44	0.89	0.69	21	4	4	13	2	2
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140702
DATE RUN: 05 18 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9H158640 DRIVER: MYER FUEL: LR24667

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.8	0.0	0.0	0.22	0.00	0.00	10	0	0	6	0	0
CISPENT-2	0.3	0.0	0.0	0.08	0.00	0.00	4	0	0	2	0	0
2MBUT-2	1.4	0.0	0.1	0.39	0.00	0.23	17	0	1	11	0	1
22MBUTANE	0.3	0.1	0.1	0.08	0.45	0.23	4	2	1	2	1	1
CYPENTENE	0.2	0.0	0.0	0.06	0.00	0.00	2	0	0	2	0	0
3MPLNTENE	0.1	0.0	0.0	0.03	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.2	0.0	0.0	0.06	0.00	0.00	2	0	0	2	0	0
23MBUTANE	2.5	0.2	0.3	0.70	0.89	0.69	32	4	4	20	2	2
2MPENTANE	5.5	0.3	0.7	1.53	1.34	1.60	70	5	9	44	3	6
3MPENTANE	3.5	0.3	0.5	0.97	1.34	1.14	45	5	7	28	3	4
HEXENE-1	0.7	0.0	0.0	0.19	0.00	0.00	9	0	0	5	0	0
N HEXANE	2.5	0.1	0.3	0.70	0.45	0.69	32	2	4	20	1	2
TC6=3,=2	1.9	0.0	0.0	0.53	0.00	0.00	24	0	0	15	0	0
CC6=3	0.4	0.0	0.0	0.11	0.00	0.00	5	0	0	3	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	3.5	0.1	0.3	0.97	0.45	0.69	44	2	4	27	1	2
24MPENTANE	7.4	0.4	0.7	2.06	1.79	1.60	94	7	9	59	4	6
BENZENE	8.7	0.5	1.6	2.42	2.23	3.66	101	8	19	63	5	12
CYHEXANE	1.6	0.0	0.0	0.44	0.00	0.00	20	0	0	12	0	0
2MC6+23MC5	18.3	0.7	1.5	5.09	3.13	3.43	233	12	20	145	8	12
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	6.5	0.3	0.5	1.81	1.34	1.14	83	5	7	52	3	4
224MPENTAN	38.6	1.9	3.7	10.73	8.48	8.47	491	33	49	305	21	30
NHEPTANE	6.3	0.2	0.5	1.75	0.89	1.14	80	4	7	50	2	4
MCYHEXANE	1.7	0.1	0.1	0.47	0.45	0.23	21	2	1	13	1	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	9.3	0.3	0.7	2.59	1.34	1.60	118	5	9	74	3	6
234MC5	9.8	0.3	0.7	2.72	1.34	1.60	125	5	9	77	3	6
TOLUENE	32.0	0.5	1.9	8.90	2.23	4.35	375	8	23	233	5	14
23MC6+4MC7	4.9	0.2	0.4	1.36	0.89	0.92	62	4	5	39	2	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140702
DATE RUN: 05 18 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B15R640 DRIVER: HYER FUEL: LR24867

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	6.3	0.2	0.4	1.75	0.89	0.92	80	4	5	50	2	3
3MHEPTANE	5.7	0.2	0.4	1.58	0.89	0.92	73	4	5	45	2	3
255MC6	5.5	0.2	0.4	1.53	0.89	0.92	70	4	5	43	2	3
N OCTANE	3.3	0.1	0.2	0.92	0.45	0.46	42	2	3	26	1	2
223MC6	0.8	0.0	0.1	0.22	0.00	0.23	10	0	1	6	0	1
ETCYHEXANE	1.8	0.0	0.2	0.50	0.00	0.46	22	0	3	14	0	2
ET BENZENE	4.7	0.1	0.2	1.31	0.45	0.46	56	2	2	35	1	2
M+PXYLENE	18.2	0.1	0.9	5.06	0.45	2.06	215	2	11	134	1	7
2+4MC8	3.1	0.1	0.3	0.86	0.45	0.69	39	2	4	24	1	2
O XYLENE	7.4	0.1	0.3	2.06	0.45	0.69	87	2	4	54	1	2
N NONANE	2.2	0.0	0.2	0.61	0.00	0.46	28	0	3	17	0	2
IPRBENZENE	1.9	0.0	0.2	0.53	0.00	0.46	23	0	2	14	0	2
NPRBENZENE	1.2	0.0	0.0	0.33	0.00	0.00	14	0	0	9	0	0
1M3ETBENZ	5.3	0.0	0.1	1.47	0.00	0.23	63	0	1	39	0	1
135MEBENZ	2.2	0.0	0.2	0.61	0.00	0.46	26	0	2	16	0	2
1M2ETBENZ	2.5	0.0	0.4	0.70	0.00	0.92	30	0	5	18	0	3
124MBENZ	6.4	0.0	0.4	1.78	0.00	0.92	76	0	5	47	0	3
SBUBENZENE	0.8	0.0	0.1	0.22	0.00	0.23	10	0	1	6	0	1
N DECANE	0.5	0.0	0.0	0.14	0.00	0.00	6	0	0	4	0	0
123MBENZ	1.4	0.0	0.0	0.39	0.00	0.00	17	0	0	10	0	0
INDANE	0.9	0.0	0.0	0.25	0.00	0.00	11	0	0	7	0	0
13EMBENZENE	0.2	0.0	0.0	0.06	0.00	0.00	2	0	0	1	0	0
NBUMBENZENE	0.4	0.0	0.0	0.11	0.00	0.00	5	0	0	3	0	0
1M3PRBENZ	0.7	0.0	0.0	0.19	0.00	0.00	8	0	0	5	0	0
UNKNOWNS	24.9	0.3	1.6	6.92	1.34	3.66	298	5	20	185	3	12

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140801
DATE RUN: 04 27 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	76.8	22.6	57.2
GC PPMC	66.4	20.1	44.2

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	19.6	9.5	11.4	29.52	47.26	25.79	274	168	177	171	104	110
SATURATES	22.6	8.2	21.7	34.04	40.80	49.10	283	130	302	176	81	188
OLEFINS	6.2	0.9	2.8	9.34	4.48	6.33	76	14	38	47	9	24
ACETYLENE	1.7	0.0	0.0	2.56	0.00	0.00	19	0	0	12	0	0
NAPTHENES	0.8	0.0	0.6	1.20	0.00	1.36	10	0	8	6	0	5
AROMATICS	13.0	1.2	6.2	19.58	5.97	14.83	149	17	79	93	11	49
BENZENE	2.1	0.4	1.1	3.16	1.99	2.49	24	6	14	15	4	9
TOLUENE	4.3	0.5	2.1	6.48	2.49	4.75	49	7	27	31	5	17
C8+AROM	6.6	0.3	3.0	9.94	1.49	6.79	77	4	39	48	3	24
UNKNOWN	2.5	0.3	1.5	0.00	0.00	0.00	29	4	20	18	3	12
INDIVIDUAL COMPONENTS												
METHANE	19.6	9.5	11.4	29.52	47.26	25.79	274	168	177	171	104	110
ETHYLENE	3.3	0.7	1.7	4.97	3.48	3.85	40	11	23	25	7	14
ETHANE	1.3	0.9	1.2	1.96	4.48	2.71	17	15	17	11	9	11
ACETYLENE	1.7	0.0	0.0	2.56	0.00	0.00	19	0	0	12	0	0
C3 + C3=	1.5	0.1	0.5	2.26	0.50	1.13	18	2	7	11	1	4
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.2	0.1	0.3	0.30	0.50	0.68	3	2	4	2	1	3
B1 + IB	0.4	0.0	0.0	0.60	0.00	0.00	5	0	0	3	0	0
NC4 +B=1=3	2.0	1.3	2.9	3.01	6.47	6.56	25	21	41	16	13	25
TBUTENE-2	0.2	0.0	0.1	0.30	0.00	0.23	2	0	1	2	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.1	0.0	0.1	0.15	0.00	0.23	1	0	1	1	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.15	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	1.3	1.0	2.4	1.96	4.98	5.43	16	16	34	10	10	21
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	0.3	0.2	0.5	0.45	1.00	1.13	4	3	7	2	2	4
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140801
DATE RUN: 04 27 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B15R640 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
TPENT=2	0.1	0.0	0.1	0.15	0.00	0.23	1	0	1	1	0	1
CISPENT-2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-2	0.2	0.0	0.2	0.30	0.00	0.45	2	0	3	2	0	2
22MBUTANE	0.2	0.1	0.1	0.30	0.50	0.23	3	2	1	2	1	1
CYPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	0.3	0.2	0.4	0.45	1.00	0.90	4	3	6	2	2	3
2MPENTANE	0.7	0.4	0.8	1.05	1.99	1.81	9	6	11	5	4	7
3MPENTANE	0.6	0.2	0.6	0.90	1.00	1.36	8	3	8	5	2	5
HEXENE-1	0.1	0.0	0.0	0.15	0.00	0.00	1	0	0	1	0	0
N HEXANE	0.4	0.1	0.3	0.60	0.50	0.68	5	2	4	3	1	3
TC6=3,=2	0.2	0.0	0.1	0.30	0.00	0.23	2	0	1	2	0	1
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.0	0.1	0.0	0.00	0.50	0.00	0	2	0	0	1	0
MCYP4,3M2C5	0.4	0.0	0.4	0.60	0.00	0.90	5	0	5	3	0	3
24MPENTANE	0.9	0.3	0.9	1.36	1.49	2.04	11	5	12	7	3	8
BENZENE	2.1	0.4	1.1	3.16	1.99	2.49	24	6	14	15	4	9
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	2.1	0.6	1.8	3.16	2.99	4.07	26	9	25	16	6	16
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.7	0.2	0.6	1.05	1.00	1.36	9	3	8	5	2	5
224MPENTAN	4.7	1.5	4.1	7.08	7.46	9.28	59	24	57	36	15	35
NHEPTANE	0.6	0.1	0.5	0.90	0.50	1.13	7	2	7	5	1	4
MCYHEXANE	0.2	0.0	0.1	0.30	0.00	0.23	2	0	1	2	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.1	0.2	0.7	1.66	1.00	1.58	14	3	10	9	2	6
234MC5	1.1	0.2	0.8	1.66	1.00	1.81	14	3	11	9	2	7
TOLUENE	4.3	0.5	2.1	6.48	2.49	4.75	49	7	27	31	5	17
23MC6+4MC7	0.6	0.1	0.4	0.90	0.50	0.90	7	2	6	5	1	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140801
DATE RUN: 04 27 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVER: HYEK FUEL: SUNNER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	0.7	0.1	0.5	1.05	0.50	1.13	9	2	7	5	1	4
3MHEPTANE	0.7	0.1	0.5	1.05	0.50	1.13	9	2	7	5	1	4
255MC6	0.7	0.1	0.5	1.05	0.50	1.13	9	2	7	5	1	4
N OCTANE	0.4	0.1	0.3	0.60	0.50	0.68	5	2	4	3	1	3
223MC6	0.1	0.0	0.1	0.15	0.00	0.23	1	0	1	1	0	1
ETCYHEXANE	0.2	0.0	0.1	0.30	0.00	0.23	2	0	1	2	0	1
ET BENZENE	0.6	0.1	0.2	0.90	0.50	0.45	7	1	3	4	1	2
M+PXYLENE	2.3	0.2	1.0	3.46	1.00	2.26	27	3	13	17	2	8
2+4MC8	0.5	0.1	0.3	0.75	0.50	0.68	6	2	4	4	1	3
O XYLENE	0.9	0.0	0.4	1.36	0.00	0.90	10	0	5	6	0	3
N NONANE	0.4	0.0	0.2	0.60	0.00	0.45	5	0	3	3	0	2
IPRBENZENE	0.3	0.0	0.2	0.45	0.00	0.45	3	0	3	2	0	2
NPRBENZENE	0.1	0.0	0.0	0.15	0.00	0.00	1	0	0	1	0	0
1M3ETBENZ	0.6	0.0	0.3	0.90	0.00	0.68	7	0	4	4	0	2
135MEBENZ	0.2	0.0	0.0	0.30	0.00	0.00	2	0	0	1	0	0
1M2ETBENZ	0.4	0.0	0.4	0.60	0.00	0.90	5	0	5	3	0	3
124MBENZ	0.8	0.0	0.4	1.20	0.00	0.90	9	0	5	6	0	3
SBUBENZENE	0.2	0.0	0.1	0.30	0.00	0.23	2	0	1	1	0	1
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.2	0.0	0.0	0.30	0.00	0.00	2	0	0	1	0	0
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1M3PRBENZ	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
UNKNOWNS	2.5	0.3	1.5	3.77	1.49	3.39	29	4	20	18	3	12

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140802
DATE RUN: 05 17 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVER: MYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	281.7	23.7	54.6
GC PPMC	222.3	18.8	44.2

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	25.3	8.9	12.4	11.38	47.34	28.05	426	194	196	265	120	122
SATURATES	91.8	7.2	20.5	41.30	38.30	46.38	1383	140	290	860	87	180
OLEFINS	16.1	0.7	2.7	7.24	3.72	6.11	237	13	37	147	8	23
ACETYLENE	7.0	0.0	0.0	3.15	0.00	0.00	96	0	0	59	0	0
NAPTHENES	4.0	0.3	0.6	1.80	1.60	1.36	59	6	8	37	4	5
AROMATICS	62.9	1.2	6.9	28.30	6.38	15.61	869	21	89	540	13	56
BENZENE	6.2	0.4	1.6	2.79	2.13	3.62	85	7	20	53	4	13
TOLUENE	20.4	0.5	2.3	9.18	2.66	5.20	282	9	30	175	6	19
C8+AROM	36.3	0.3	3.0	16.33	1.60	6.79	510	5	39	317	3	25
UNKNOWN	15.2	0.5	1.1	0.00	0.00	0.00	214	9	15	133	6	9
INDIVIDUAL COMPONENTS												
METHANE	25.3	8.9	12.4	11.38	47.34	28.05	426	194	196	265	120	122
ETHYLENE	7.7	0.7	2.6	3.46	3.72	5.88	113	13	36	70	8	22
ETHANE	1.9	0.9	1.7	0.85	4.79	3.85	30	18	25	19	11	16
ACETYLENE	7.0	0.0	0.0	3.15	0.00	0.00	96	0	0	59	0	0
C3 + C3=	3.0	0.0	0.0	1.35	0.00	0.00	44	0	0	27	0	0
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.2	0.0	0.4	0.09	0.00	0.90	3	0	6	2	0	4
B1 + IB	1.0	0.0	0.0	0.45	0.00	0.00	15	0	0	9	0	0
NC4 +B=1=3	3.6	0.6	1.8	1.62	3.19	4.07	55	12	26	34	7	16
TBUTENE-2	0.4	0.0	0.0	0.18	0.00	0.00	6	0	0	4	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.3	0.0	0.0	0.13	0.00	0.00	4	0	0	3	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	3.6	0.7	1.8	1.62	3.72	4.07	55	14	26	34	9	16
PENTENE-1	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	1.0	0.1	0.3	0.45	0.53	0.68	15	2	4	9	1	3
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140802
DATE RUN: 05 17 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.4	0.0	0.0	0.18	0.00	0.00	6	0	0	4	0	0
CISPENT-2	0.2	0.0	0.0	0.09	0.00	0.00	3	0	0	2	0	0
2MBUT-2	0.8	0.0	0.1	0.36	0.00	0.23	12	0	1	7	0	1
22MBUTANE	0.4	0.1	0.3	0.18	0.53	0.68	6	2	4	4	1	3
CYPENTENE	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0
CYPENTANE	0.1	0.1	0.0	0.04	0.53	0.00	1	2	0	1	1	0
23MBUTANE	1.2	0.2	0.3	0.54	1.06	0.68	18	4	4	11	2	3
2MPENTANE	2.8	0.3	0.7	1.26	1.60	1.58	42	6	10	26	4	6
3MPENTANE	1.9	0.4	0.7	0.85	2.13	1.58	29	8	10	18	5	6
HEXENE-1	0.5	0.0	0.0	0.22	0.00	0.00	7	0	0	5	0	0
N HEXANE	1.3	0.1	0.3	0.58	0.53	0.68	20	2	4	12	1	3
TC6=3,=2	1.2	0.0	0.0	0.54	0.00	0.00	18	0	0	11	0	0
CC6=3	0.2	0.0	0.0	0.09	0.00	0.00	3	0	0	2	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP4JM2C5	1.9	0.1	0.4	0.85	0.53	0.90	28	2	6	17	1	3
24MPENTANE	3.9	0.3	0.8	1.75	1.60	1.81	59	6	11	36	4	7
BENZENE	6.2	0.4	1.6	2.79	2.13	3.62	85	7	20	53	4	13
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	10.1	0.6	1.8	4.54	3.19	4.07	152	12	25	94	7	16
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	3.6	0.2	0.6	1.62	1.06	1.36	54	4	8	34	2	5
224MPENTAN	21.8	1.5	4.2	9.81	7.98	9.50	327	29	59	203	18	37
NHEPTANE	3.6	0.1	0.6	1.62	0.53	1.36	54	2	8	34	1	5
MCYHEXANE	1.0	0.0	0.1	0.45	0.00	0.23	15	0	1	9	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	5.2	0.2	0.7	2.34	1.06	1.58	78	4	10	48	2	6
234MC5	5.9	0.2	0.8	2.65	1.06	1.81	88	4	11	55	2	7
TULUENE	20.4	0.5	2.3	9.18	2.66	5.20	282	9	30	175	6	19
23MC6+4MC7	3.0	0.1	0.4	1.35	0.53	0.90	45	2	6	28	1	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140802
DATE RUN: 05 17 79
CAR: 1979 DODGE ASPLN CALIF. VIN: NL29C9B158640 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	3.8	0.2	0.5	1.71	1.06	1.13	57	4	7	35	2	4
3MHEPTANE	3.4	0.1	0.4	1.53	0.53	0.90	51	2	6	32	1	3
25MC6	3.4	0.1	0.5	1.53	0.53	1.13	51	2	7	32	1	4
N OCTANE	2.0	0.1	0.3	0.90	0.53	0.68	30	2	4	19	1	3
223MC6	0.5	0.0	0.1	0.22	0.00	0.23	7	0	1	5	0	1
ETCYHEXANE	1.0	0.1	0.1	0.45	0.53	0.23	15	2	1	9	1	1
ET BENZENE	3.1	0.0	0.2	1.39	0.00	0.45	43	0	3	27	0	2
M+PXYLENE	12.4	0.2	1.0	5.58	1.06	2.26	173	4	13	107	2	8
2+4MC8	2.0	0.1	0.3	0.90	0.53	0.68	30	2	4	19	1	3
O XYLENE	5.0	0.1	0.4	2.25	0.53	0.90	70	2	5	43	1	3
N NONANE	1.4	0.0	0.2	0.63	0.00	0.45	21	0	3	13	0	2
IPRBENZENE	1.2	0.0	0.2	0.54	0.00	0.45	17	0	3	10	0	2
NPRBENZENE	0.8	0.0	0.0	0.36	0.00	0.00	11	0	0	7	0	0
1M3ETBENZ	3.8	0.0	0.2	1.71	0.00	0.45	53	0	3	33	0	2
135MEBENZ	1.6	0.0	0.4	0.72	0.00	0.90	22	0	5	14	0	3
1M2ETBENZ	1.6	0.0	0.1	0.72	0.00	0.23	22	0	1	14	0	1
124MBENZ	4.6	0.0	0.4	2.07	0.00	0.90	64	0	5	40	0	3
SBUBENZENE	0.4	0.0	0.1	0.18	0.00	0.23	6	0	1	4	0	1
N DECANE	0.3	0.0	0.0	0.13	0.00	0.00	4	0	0	3	0	0
123MBENZ	1.0	0.0	0.0	0.45	0.00	0.00	14	0	0	9	0	0
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.1	0.0	0.0	0.04	0.00	0.00	1	0	0	1	0	0
NBUBENZENE	0.2	0.0	0.0	0.09	0.00	0.00	3	0	0	2	0	0
1M3PRBENZ	0.5	0.0	0.0	0.22	0.00	0.00	7	0	0	4	0	0
UNKNOWNS	15.2	0.5	1.1	6.84	2.66	2.49	214	9	15	133	6	9

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140811
DATE RUN: 05 02 79 AIR CONDITIONER USED
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVER: HYLK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	94.9	24.0	57.3
GC PPMC	84.2	24.1	35.9

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
MAJOR COMPONENTS												
METHANE	19.3	9.2	8.4	22.92	38.17	23.40	274	156	167	171	97	104
SATURATES	28.1	8.5	19.5	33.37	35.27	54.32	358	129	347	222	80	215
OLEFINS	8.9	0.9	1.8	10.57	3.73	5.01	111	13	31	69	8	19
ACETYLENE	3.1	0.0	0.0	3.68	0.00	0.00	36	0	0	22	0	0
NAPTHENES	1.1	0.1	0.7	1.31	0.41	1.95	14	1	12	9	1	8
AROMATICS	19.5	4.6	4.3	23.16	19.09	11.98	228	64	70	142	40	44
BENZENE	2.9	0.4	1.1	3.44	1.66	3.06	33	6	18	21	3	11
TOLUENE	5.8	0.7	1.5	6.89	2.90	4.18	68	10	24	42	6	15
C8+AROM	10.8	3.5	1.7	12.83	14.52	4.74	128	50	28	80	31	18
UNKNOWN	4.2	0.8	1.2	0.00	0.00	0.00	50	11	20	31	7	12
INDIVIDUAL COMPONENTS												
METHANE	19.3	9.2	8.4	22.92	38.17	23.40	274	156	167	171	97	104
ETHYLENE	4.9	0.8	1.3	5.82	3.32	3.62	61	12	23	38	7	14
ETHANE	1.3	0.9	0.8	1.54	3.73	2.23	17	14	15	11	9	9
ACETYLENE	3.1	0.0	0.0	3.68	0.00	0.00	36	0	0	22	0	0
C3 + C3=	2.0	0.0	0.4	2.38	0.00	1.11	25	0	7	15	0	4
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.2	0.1	0.3	0.24	0.41	0.84	3	2	5	2	1	3
B1 + 1B	0.7	0.0	0.0	0.83	0.00	0.00	9	0	0	5	0	0
NC4 +B=1=3	2.4	1.1	2.3	2.85	4.56	6.41	31	17	41	19	11	26
TBUTENE-2	0.2	0.0	0.0	0.24	0.00	0.00	2	0	0	2	0	0
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.0	0.24	0.00	0.00	2	0	0	2	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	1.7	0.9	1.9	2.02	3.73	5.29	22	14	34	14	9	21
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	0.4	0.2	0.4	0.48	0.83	1.11	5	3	7	3	2	4
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140811
DATE RUN: 05 02 79 AIR CONDITIONER USED
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVEN: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
CISPENT-2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-2	0.3	0.0	0.1	0.36	0.00	0.28	4	0	2	2	0	1
22MBUTANE	0.2	0.1	0.2	0.24	0.41	0.56	3	2	4	2	1	2
CYPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.1	0.12	0.00	0.28	1	0	2	1	0	1
23MBUTANE	0.4	0.1	0.4	0.48	0.41	1.11	5	2	7	3	1	4
2MPENTANE	0.8	0.4	0.8	0.95	1.66	2.23	10	6	14	6	4	9
3MPENTANE	0.6	0.2	1.5	0.71	0.83	4.18	8	3	27	5	2	17
HEXENE-1	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
N HEXANE	0.4	0.1	0.5	0.48	0.41	1.39	5	2	9	3	1	6
TC6=3=2	0.3	0.0	0.0	0.36	0.00	0.00	4	0	0	2	0	0
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.0	0.1	0.0	0.00	0.41	0.00	0	1	0	0	1	0
MCYP43M2C5	0.5	0.0	0.4	0.59	0.00	1.11	6	0	7	4	0	4
24MPENTANE	1.1	0.3	0.8	1.31	1.24	2.23	14	5	14	9	3	9
BENZENE	2.9	0.4	1.1	3.44	1.66	3.06	33	6	18	21	3	11
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	2.7	0.6	1.5	3.21	2.49	4.18	34	9	27	21	6	17
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.9	0.2	0.5	1.07	0.83	1.39	11	3	9	7	2	6
224MPENTAN	6.1	1.6	3.6	7.24	6.64	10.03	77	24	64	48	15	40
NHEPTANE	0.8	0.1	0.4	0.95	0.41	1.11	10	2	7	6	1	4
MCYHEXANE	0.2	0.0	0.1	0.24	0.00	0.28	2	0	2	2	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.4	0.2	0.7	1.66	0.83	1.95	18	3	12	11	2	8
234MC5	1.4	0.3	0.7	1.66	1.24	1.95	18	5	12	11	3	8
TOLUENE	5.8	0.7	1.5	6.89	2.90	4.16	68	10	24	42	6	15
23MC6+4MC7	0.9	0.2	0.4	1.07	0.83	1.11	11	3	7	7	2	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140811
DATE RUN: 05 02 79 AIR CONDITIONER USED
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	0.9	0.2	0.4	1.07	0.83	1.11	11	3	7	7	2	4
3MHEPTANE	0.8	0.1	0.4	0.95	0.41	1.11	10	2	7	6	1	4
255MC6	0.9	0.2	0.4	1.07	0.83	1.11	11	3	7	7	2	4
N OCTANE	0.5	0.1	0.2	0.59	0.41	0.56	6	2	4	4	1	2
223MC6	0.1	0.0	0.1	0.12	0.00	0.28	1	0	2	1	0	1
ETCYHEXANE	0.3	0.1	0.1	0.36	0.41	0.28	4	1	2	2	1	1
ET BENZENE	0.9	0.1	0.1	1.07	0.41	0.28	11	1	2	7	1	1
M+PXYLENE	3.5	0.6	0.5	4.16	2.49	1.39	41	8	8	26	5	5
2+4MC8	0.7	0.2	0.3	0.83	0.83	0.84	9	3	5	5	2	3
O XYLENE	1.4	0.2	0.4	1.66	0.83	1.11	16	3	7	10	2	4
N NONANE	0.5	0.1	0.0	0.59	0.41	0.00	6	2	0	4	1	0
IPRBENZENE	0.4	0.1	0.2	0.48	0.41	0.56	5	1	3	3	1	2
NPRBENZENE	0.2	0.0	0.1	0.24	0.00	0.28	2	0	2	1	0	1
1M3CTBENZ	1.1	0.9	0.3	1.31	2.73	0.84	13	13	5	8	8	3
135MEBENZ	0.5	0.2	0.0	0.59	0.83	0.00	6	3	0	4	2	0
1M2ETBENZ	0.6	0.2	0.1	0.71	0.83	0.28	7	3	2	4	2	1
124MBENZ	1.3	0.8	0.0	1.54	3.32	0.00	15	11	0	10	7	0
SBUBENZENE	0.4	0.2	0.0	0.48	0.83	0.00	5	3	0	3	2	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.4	0.2	0.0	0.48	0.83	0.00	5	3	0	3	2	0
INDANE	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1M3PRBENZ	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
UNKNOWNS	4.2	0.8	1.2	4.99	3.32	3.34	50	11	20	31	7	12

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140812
DATE RUN: 05 16 79 AIR CONDITIONER USED
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 80

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	229.5	22.2	57.6
GC PPMC	183.2	17.2	44.7

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	26.3	8.4	12.4	14.36	48.84	27.74	438	187	204	272	116	127
SATURATES	68.9	6.6	20.8	37.61	38.37	46.53	1027	131	307	638	82	191
OLEFINS	16.9	1.1	3.2	9.22	6.40	7.16	246	21	46	153	13	29
ACETYLENE	6.1	0.0	0.0	3.33	0.00	0.00	82	0	0	51	0	0
NAPTHENES	3.0	0.1	0.7	1.64	0.58	1.57	44	2	10	27	1	6
AROMATICS	50.0	1.0	6.6	27.29	5.81	14.77	684	18	89	425	11	55
BENZENE	6.0	0.4	1.5	3.28	2.33	3.36	81	7	20	50	4	12
TOLUENE	15.1	0.4	2.1	8.24	2.33	4.70	206	7	28	128	5	18
C8+AROM	28.9	0.2	3.0	15.78	1.16	6.71	402	4	41	250	2	26
UNKNOWN	12.0	0.0	1.0	0.00	0.00	0.00	167	0	14	104	0	9
INDIVIDUAL COMPONENTS												
METHANE	26.3	8.4	12.4	14.36	48.84	27.74	438	187	204	272	116	127
ETHYLENE	8.9	0.6	2.2	4.86	3.49	4.92	130	12	32	81	7	20
ETHANE	1.7	0.9	1.3	0.93	5.23	2.91	27	19	20	16	12	12
ACETYLENE	6.1	0.0	0.0	3.33	0.00	0.00	82	0	0	51	0	0
C3 + C3=	2.8	0.5	0.7	1.53	2.91	1.57	41	10	10	25	6	6
C=C=C	0.9	0.0	0.0	0.49	0.00	0.00	12	0	0	8	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.2	0.1	0.2	0.11	0.58	0.45	3	2	3	2	1	2
B1 + 1B	1.0	0.0	0.0	0.55	0.00	0.00	15	0	0	9	0	0
NC4 +B=1=3	3.3	0.6	1.8	1.80	3.49	4.03	50	12	27	31	8	17
TBUTENE-2	0.4	0.0	0.1	0.22	0.00	0.22	6	0	1	4	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.3	0.0	0.1	0.16	0.00	0.22	4	0	1	3	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	3.2	0.7	1.9	1.75	4.07	4.25	48	14	28	30	9	17
PENTENE-1	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	0.9	0.1	0.3	0.49	0.58	0.67	13	2	4	8	1	3
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 840812
DATE RUN: 05 16 79 AIR CONDITIONER USED
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9U156640 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.3	0.0	0.0	0.16	0.00	0.00	4	0	0	3	0	0
CISPENT-2	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.6	0.0	0.1	0.33	0.00	0.22	9	0	1	5	0	1
22MBUTANE	0.1	0.1	0.1	0.05	0.58	0.22	1	2	1	1	1	1
CYPENTENE	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
23MBUTANE	1.0	0.1	0.4	0.55	0.58	0.89	15	2	6	9	1	4
2MPENTANE	2.3	0.3	0.7	1.26	1.74	1.57	34	6	10	21	4	6
3MPENTANE	1.5	0.2	0.7	0.82	1.16	1.57	22	4	10	14	2	6
HEXENE-1	0.3	0.0	0.0	0.16	0.00	0.00	4	0	0	3	0	0
N HEXANE	1.0	0.1	0.3	0.55	0.58	0.67	15	2	4	9	1	3
TC6=3,=2	0.9	0.0	0.0	0.49	0.00	0.00	13	0	0	8	0	0
CC6=3	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	1.4	0.1	0.4	0.76	0.58	0.89	20	2	6	13	1	4
24MPENTANE	2.9	0.2	0.9	1.58	1.16	2.01	43	4	13	27	2	8
BENZENE	6.0	0.4	1.5	3.28	2.33	3.36	81	7	20	50	4	12
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	7.4	0.5	1.9	4.04	2.91	4.25	110	10	28	68	6	17
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	2.6	0.2	0.7	1.42	1.16	1.57	39	4	10	24	2	6
224MPENTAN	15.9	1.4	4.4	8.68	8.14	9.84	236	28	64	146	17	40
NHEPTANE	2.5	0.1	0.5	1.36	0.58	1.12	37	2	7	23	1	5
MCYHEXANE	0.7	0.0	0.1	0.38	0.00	0.22	10	0	1	6	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	3.6	0.2	0.8	1.97	1.16	1.79	53	4	12	33	2	7
234MC5	4.1	0.2	0.9	2.24	1.16	2.01	61	4	13	38	2	8
TOLUENE	15.1	0.4	2.1	8.24	2.33	4.70	206	7	28	128	5	18
23MC6+4MC7	2.2	0.1	0.5	1.20	0.58	1.12	33	2	7	20	1	5

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140812
DATE RUN: 05 16 79 AIR CONDITIONER USED
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	2.7	0.1	0.5	1.47	0.58	1.12	40	2	7	25	1	5
3MHEPTANE	2.4	0.1	0.5	1.31	0.58	1.12	36	2	7	22	1	5
255MC6	2.5	0.1	0.5	1.36	0.58	1.12	37	2	7	23	1	5
N OCTANE	1.5	0.1	0.2	0.82	0.58	0.45	22	2	3	14	1	2
223MC6	0.4	0.0	0.1	0.22	0.00	0.22	6	0	1	4	0	1
ETCYHEXANE	0.8	0.0	0.2	0.44	0.00	0.45	12	0	3	7	0	2
ET BENZENE	2.4	0.0	0.2	1.31	0.00	0.45	33	0	3	21	0	2
M+PXYLENE	9.5	0.1	1.0	5.19	0.58	2.24	131	2	14	81	1	8
2+4MC8	1.6	0.1	0.4	0.87	0.58	0.89	24	2	6	15	1	4
O XYLENE	4.0	0.1	0.4	2.18	0.58	0.89	55	2	5	34	1	3
N NONANE	1.1	0.0	0.3	0.60	0.00	0.67	16	0	4	10	0	3
IPRBENZENE	1.0	0.0	0.2	0.55	0.00	0.45	14	0	3	9	0	2
NPRBENZENE	0.6	0.0	0.0	0.33	0.00	0.00	8	0	0	5	0	0
1M3ETBENZ	3.0	0.0	0.2	1.64	0.00	0.45	42	0	3	26	0	2
135MEBENZ	1.3	0.0	0.4	0.71	0.00	0.89	18	0	5	11	0	3
1M2ETBENZ	1.5	0.0	0.1	0.82	0.00	0.22	21	0	1	13	0	1
124MBENZ	3.6	0.0	0.4	1.97	0.00	0.89	50	0	5	31	0	3
SBUBENZENE	0.5	0.0	0.1	0.27	0.00	0.22	7	0	1	4	0	1
N DECANE	0.3	0.0	0.0	0.16	0.00	0.00	4	0	0	3	0	0
123MBENZ	0.8	0.0	0.0	0.44	0.00	0.00	11	0	0	7	0	0
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.1	0.0	0.0	0.05	0.00	0.00	1	0	0	1	0	0
NBUBENZENE	0.2	0.0	0.0	0.11	0.00	0.00	3	0	0	2	0	0
1M3PRBENZ	0.4	0.0	0.0	0.22	0.00	0.00	6	0	0	3	0	0
UNKNOWNS	12.0	0.0	1.0	6.55	0.00	2.24	167	0	14	104	0	9

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140901
DATE RUN: 05 03 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	81.6	24.6	61.6
GC PPMC	80.3	22.1	49.4

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	20.4	9.9	13.1	25.40	44.80	26.52	258	186	202	160	116	126
SATURATES	24.0	9.7	25.1	29.89	43.89	50.81	271	163	347	169	102	215
OLEFINS	8.1	0.9	2.6	10.09	4.07	5.26	89	15	35	56	9	22
ACETYLENE	1.9	0.0	0.0	2.37	0.00	0.00	19	0	0	12	0	0
NAPTHENES	0.8	0.1	0.7	1.00	0.45	1.42	9	2	9	5	1	6
AROMATICS	20.8	1.4	6.7	25.90	6.33	13.56	216	22	85	134	13	53
BENZENE	2.7	0.5	1.4	3.36	2.26	2.83	28	8	18	17	5	11
TOLUENE	5.5	0.6	2.2	6.85	2.71	4.45	57	9	28	35	6	17
C8+ARUM	12.6	0.3	3.1	15.69	1.36	6.28	133	5	40	83	3	25
UNKNOWN	4.3	0.1	1.2	0.00	0.00	0.00	45	2	15	28	1	10
INDIVIDUAL COMPONENTS												
METHANE	20.4	9.9	13.1	25.40	44.80	26.52	258	186	202	160	116	126
ETHYLENE	4.4	0.7	1.7	5.48	3.17	3.44	49	12	23	30	7	14
ETHANE	1.4	1.1	1.3	1.74	4.98	2.63	17	19	19	10	12	12
ACETYLENE	1.9	0.0	0.0	2.37	0.00	0.00	19	0	0	12	0	0
C3 + C3=	2.0	0.2	0.4	2.49	0.90	0.61	22	3	5	14	2	3
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.3	0.2	0.3	0.37	0.90	0.61	3	3	4	2	2	3
B1 + 1B	0.5	0.0	0.0	0.62	0.00	0.00	6	0	0	3	0	0
NC4 +B=1=3	2.3	1.3	3.4	2.86	5.88	6.88	26	22	47	16	14	30
TBUTENE-2	0.2	0.0	0.1	0.25	0.00	0.20	2	0	1	1	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.1	0.25	0.00	0.20	2	0	1	1	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	1.5	1.0	2.8	1.87	4.52	5.67	17	17	39	11	11	24
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	0.4	0.2	0.6	0.50	0.90	1.21	5	3	8	3	2	5
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140901
DATE RUN: 05 03 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.1	0.0	0.1	0.12	0.00	0.20	1	0	1	1	0	1
CISPENT-2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-2	0.3	0.0	0.2	0.37	0.00	0.40	3	0	3	2	0	2
22MBUTANE	0.1	0.1	0.1	0.12	0.45	0.20	1	2	1	1	1	1
CYPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	0.3	0.2	0.5	0.37	0.90	1.01	3	3	7	2	2	4
2MPENTANE	0.7	0.4	1.0	0.87	1.81	2.02	8	7	14	5	4	9
3MPENTANE	0.6	0.3	0.8	0.75	1.36	1.62	7	5	11	4	3	7
HEXENE-1	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
N HEXANE	0.3	0.1	0.4	0.37	0.45	0.81	3	2	6	2	1	3
TC6=3,=2	0.2	0.0	0.0	0.25	0.00	0.00	2	0	0	1	0	0
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	0.4	0.1	0.4	0.50	0.45	0.81	4	2	5	3	1	3
24MPENTANE	0.9	0.3	1.0	1.12	1.36	2.02	10	5	14	6	3	9
BENZENE	2.7	0.5	1.4	3.36	2.26	2.83	28	8	18	17	5	11
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	2.1	0.7	2.1	2.62	3.17	4.25	24	12	29	15	7	18
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.8	0.3	0.7	1.00	1.36	1.42	9	5	10	6	3	6
224MPENTAN	5.0	1.8	4.7	6.23	8.14	9.51	56	30	65	35	19	40
NHEPTANE	0.7	0.2	0.6	0.87	0.90	1.21	8	3	8	5	2	5
MCYHEXANE	0.2	0.0	0.1	0.25	0.00	0.20	2	0	1	1	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.1	0.3	0.9	1.37	1.36	1.82	12	5	12	8	3	8
234MC5	1.1	0.3	0.9	1.37	1.36	1.82	12	5	12	8	3	8
TOLUENE	5.5	0.6	2.2	6.85	2.71	4.45	57	9	28	35	6	17
23MC6+4MC7	0.7	0.2	0.5	0.87	0.90	1.01	8	3	7	5	2	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140901
DATE RUN: 05 03 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B156640 DRIVER: MYER FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
34MHEXANE	0.8	0.2	0.6	1.00	0.90	1.21	9	3	8	6	2	5
3MHEPTANE	0.7	0.1	0.5	0.87	0.45	1.01	8	2	7	5	1	4
25DMC6	0.7	0.2	0.5	0.87	0.90	1.01	8	3	7	5	2	4
N OCTANE	0.4	0.1	0.3	0.50	0.45	0.61	4	2	4	3	1	3
223MC6	0.1	0.0	0.1	0.12	0.00	0.20	1	0	1	1	0	1
ETCYHEXANE	0.2	0.0	0.2	0.25	0.00	0.40	2	0	3	1	0	2
ET BENZENE	0.9	0.0	0.3	1.12	0.00	0.61	9	0	4	6	0	2
M+PXYLENE	4.0	0.2	1.1	4.98	0.90	2.23	42	3	14	26	2	9
2+4MC8	0.6	0.1	0.3	0.75	0.45	0.61	7	2	4	4	1	3
O XYLENE	1.6	0.1	0.4	1.99	0.45	0.81	17	2	5	10	1	3
N NONANE	0.4	0.0	0.2	0.50	0.00	0.40	4	0	3	3	0	2
IPRBENZENE	0.3	0.0	0.2	0.37	0.00	0.40	3	0	3	2	0	2
NPRBENZENE	0.2	0.0	0.0	0.25	0.00	0.00	2	0	0	1	0	0
1M3ETBENZ	1.3	0.0	0.3	1.62	0.00	0.61	14	0	4	8	0	2
135MEBENZ	0.6	0.0	0.1	0.75	0.00	0.20	6	0	1	4	0	1
1M2ETBENZ	0.5	0.0	0.3	0.62	0.00	0.61	5	0	4	3	0	2
124MBENZ	2.1	0.0	0.3	2.62	0.00	0.61	22	0	4	14	0	2
SBUBENZENE	0.3	0.0	0.0	0.37	0.00	0.00	3	0	0	2	0	0
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.5	0.0	0.1	0.62	0.00	0.20	5	0	1	3	0	1
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.2	0.0	0.0	0.25	0.00	0.00	2	0	0	1	0	0
UNKNOWNS	4.3	0.1	1.2	5.35	0.45	2.43	45	2	15	28	1	10

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140902
DATE RUN: 05 14 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 95

HYDROCARBON CONCENTRATION BAG1 BAG2 BAG3
FID PPMC 107.8 23.6 58.3
GC PPMC 91.0 22.1 46.3

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	22.1	10.2	13.9	24.29	46.15	30.02	329	178	218	204	110	136
SATURATES	28.7	8.8	20.4	31.54	39.82	44.06	382	137	287	238	85	178
OLEFINS	10.1	0.7	2.8	11.10	3.17	6.05	131	11	38	82	7	24
ACETYLENE	2.2	0.0	0.0	2.42	0.00	0.00	27	0	0	17	0	0
NAPTHENES	1.2	0.1	0.6	1.32	0.45	1.30	16	2	8	10	1	5
AROMATICS	21.5	1.2	6.9	23.63	5.43	14.90	263	17	89	163	11	55
BENZENE	3.6	0.4	1.8	3.96	1.81	3.89	43	6	23	27	4	14
TOLUENE	6.0	0.5	2.1	6.59	2.26	4.54	73	7	27	46	4	17
C8+AROM	11.9	0.3	3.0	13.06	1.36	6.48	146	4	39	92	3	24
UNKNOWN	5.2	1.1	1.7	0.00	0.00	0.00	65	16	22	40	10	14
INDIVIDUAL COMPONENTS												
METHANE	22.1	10.2	13.9	24.29	46.15	30.02	329	178	218	204	110	136
ETHYLENE	5.6	0.7	2.2	6.15	3.17	4.75	73	11	30	45	7	19
ETHANE	1.6	1.2	1.5	1.76	5.43	3.24	22	20	22	14	12	14
ACETYLENE	2.2	0.0	0.0	2.42	0.00	0.00	27	0	0	17	0	0
C3 + C3=	2.3	0.0	0.4	2.53	0.00	0.86	30	0	5	19	0	3
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.2	0.2	0.2	0.22	0.90	0.43	3	3	3	2	2	2
B1 + IB	0.5	0.0	0.0	0.55	0.00	0.00	7	0	0	4	0	0
NC4 +B=1=3	2.1	1.0	2.0	2.31	4.52	4.32	28	16	28	18	10	18
TBUTENE-2	0.2	0.0	0.1	0.22	0.00	0.22	3	0	1	2	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.0	0.22	0.00	0.00	3	0	0	2	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	1.7	0.9	2.1	1.87	4.07	4.54	23	14	30	14	9	18
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	0.5	0.3	0.4	0.55	1.36	0.86	7	5	6	4	3	4
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 840902
DATE RUN: 05 14 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B156640 DRIVER: MYER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.2	0.0	0.0	0.22	0.00	0.00	3	0	0	2	0	0
CISPENT-2	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.3	0.0	0.1	0.33	0.00	0.22	4	0	1	2	0	1
22MBUTANE	0.5	0.1	0.4	0.55	0.45	0.86	7	2	6	4	1	3
CYPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
23MBUTANE	0.5	0.2	0.4	0.55	0.90	0.86	7	3	6	4	2	3
2MPENTANE	0.9	0.3	0.7	0.99	1.36	1.51	12	5	10	7	3	6
3MPENTANE	0.6	0.4	0.3	0.66	1.81	0.65	8	6	4	5	4	3
HEXENE-1	0.2	0.0	0.0	0.22	0.00	0.00	3	0	0	2	0	0
N HEXANE	0.5	0.1	0.3	0.55	0.45	0.65	7	2	4	4	1	3
TC6=3,=2	0.3	0.0	0.0	0.33	0.00	0.00	4	0	0	2	0	0
CC6=3	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	0.5	0.1	0.4	0.55	0.45	0.86	7	2	5	4	1	3
24MPENTANE	1.1	0.3	0.8	1.21	1.36	1.73	15	5	11	9	3	7
BENZENE	3.6	0.4	1.8	3.96	1.81	3.89	43	6	23	27	4	14
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	2.5	0.6	1.8	2.75	2.71	3.89	33	9	25	21	6	16
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.9	0.3	0.6	0.99	1.36	1.30	12	5	8	7	3	5
224MPENTAN	5.8	1.6	4.3	6.37	7.24	9.29	77	25	60	48	15	37
NHEPTANE	0.8	0.2	0.5	0.88	0.90	1.08	11	3	7	7	2	4
MCYHEXANE	0.2	0.0	0.1	0.22	0.00	0.22	3	0	1	2	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.3	0.2	0.8	1.43	0.90	1.73	17	3	11	11	2	7
234MC5	1.5	0.2	0.8	1.65	0.90	1.73	20	3	11	12	2	7
TOLUENE	6.0	0.5	2.1	6.59	2.26	4.54	73	7	27	46	4	17
23MC6+4MC7	0.9	0.1	0.4	0.99	0.45	0.86	12	2	6	7	1	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140902
DATE RUN: 05 14 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B15R640 DRIVER: MYER FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	2	3	% OF TOTAL CARBON BAG 1	2	3	MG/MILE BAG 1	2	3	MG/KM BAG 1	2	3
34MHEXANE	1.1	0.1	0.5	1.21	0.45	1.08	15	2	7	9	1	4
3MHEPTANE	1.0	0.1	0.4	1.10	0.45	0.86	13	2	6	8	1	3
25MHC6	1.1	0.2	0.4	1.21	0.90	0.86	15	3	6	9	2	3
N OCTANE	0.2	0.1	0.2	0.22	0.45	0.43	3	2	3	2	1	2
223MHC6	0.2	0.0	0.1	0.22	0.00	0.22	3	0	1	2	0	1
ETCYHEXANE	0.4	0.0	0.1	0.44	0.00	0.22	5	0	1	3	0	1
ET BENZENE	1.1	0.0	0.2	1.21	0.00	0.43	14	0	3	8	0	2
M+PXYLENE	4.0	0.2	1.0	4.40	0.90	2.16	49	3	13	31	2	8
244MHC8	0.7	0.1	0.3	0.77	0.45	0.65	9	2	4	6	1	3
O XYLENE	1.7	0.1	0.4	1.87	0.45	0.86	21	1	5	13	1	3
N NONANE	0.5	0.0	0.2	0.55	0.00	0.43	7	0	3	4	0	2
IPRBENZENE	0.4	0.0	0.2	0.44	0.00	0.43	5	0	3	3	0	2
NPRBENZENE	0.2	0.0	0.0	0.22	0.00	0.00	2	0	0	2	0	0
1M3ETBENZ	1.2	0.0	0.3	1.32	0.00	0.65	15	0	4	9	0	2
135MEBENZ	0.5	0.0	0.1	0.55	0.00	0.22	6	0	1	4	0	1
1M2ETBENZ	0.6	0.0	0.3	0.66	0.00	0.65	7	0	4	5	0	2
124MBENZ	1.5	0.0	0.3	1.65	0.00	0.65	19	0	4	12	0	2
SBUBENZENE	0.3	0.0	0.1	0.33	0.00	0.22	4	0	1	2	0	1
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.4	0.0	0.1	0.44	0.00	0.22	5	0	1	3	0	1
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1M3PRBENZ	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
UNKNOWNS	5.2	1.1	1.7	5.71	4.98	3.67	65	16	22	40	10	14

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140911
DATE RUN: 05 04 79 AIR CONDITIONER USED
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9U158640 DRIVER: MYER FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 90

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	61.8	21.4	36.8
GC PPMC	55.4	22.5	31.6

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	19.0	8.8	11.7	34.30	39.11	37.03	262	143	165	163	89	103
SATURATES	17.6	8.1	12.0	31.77	36.00	37.97	218	118	152	135	73	94
OLEFINS	4.7	0.6	2.6	8.48	2.67	8.23	57	9	32	35	5	20
ACETYLENE	0.9	0.0	0.0	1.62	0.00	0.00	10	0	0	6	0	0
NAPTHENES	0.5	0.1	0.4	0.90	0.44	1.27	6	1	5	4	1	3
AROMATICS	11.1	3.8	4.8	20.04	16.89	15.19	126	51	56	78	32	35
BENZENE	1.9	0.4	1.4	3.43	1.78	4.43	21	5	16	13	3	10
TOLUENE	3.0	0.6	1.3	5.42	2.67	4.11	34	8	15	21	5	9
C8+AROM	6.2	2.8	2.1	11.19	12.44	6.65	71	38	25	44	24	15
UNKNOWN	1.6	1.1	0.1	0.00	0.00	0.00	18	15	1	11	9	1
INDIVIDUAL COMPONENTS												
METHANE	19.0	8.8	11.7	34.30	39.11	37.03	262	143	165	163	89	103
ETHYLENE	2.8	0.6	1.7	5.05	2.67	5.38	34	9	21	21	5	13
ETHANE	1.3	0.9	1.3	2.35	4.00	4.11	17	14	17	10	9	11
ACETYLENE	0.9	0.0	0.0	1.62	0.00	0.00	10	0	0	6	0	0
C3 + C3=	1.2	0.0	0.8	2.17	0.00	2.53	14	0	10	9	0	6
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.1	0.1	0.1	0.18	0.44	0.32	1	1	1	1	1	1
B1 + I6	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NC4 +B=1=3	2.0	0.8	1.2	3.61	3.56	3.60	25	12	15	16	7	10
TBUTENE-2	0.2	0.0	0.1	0.36	0.00	0.32	2	0	1	2	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.1	0.0	0.0	0.18	0.00	0.00	1	0	0	1	0	0
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOPENTANE	1.3	0.7	1.0	2.35	3.11	3.16	16	10	13	10	6	8
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	0.3	0.2	0.2	0.54	0.89	0.63	4	3	3	2	2	2
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140911
DATE RUN: 05 04 79 AIR CONDITIONER USED
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9D158640 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.1	0.0	0.0	0.18	0.00	0.00	1	0	0	1	0	0
CISPENT-2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-2	0.1	0.0	0.0	0.18	0.00	0.00	1	0	0	1	0	0
22MBUTANE	0.2	0.2	0.3	0.36	0.89	0.95	2	3	4	2	2	2
CYPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	0.3	0.1	0.2	0.54	0.44	0.63	4	1	3	2	1	2
2MPENTANE	0.7	0.4	0.4	1.26	1.78	1.27	9	6	5	5	4	3
3MPENTANE	0.4	0.3	0.5	0.72	1.33	1.58	5	4	6	3	3	4
HEXENE-1	0.1	0.0	0.0	0.18	0.00	0.00	1	0	0	1	0	0
N HEXANE	0.2	0.1	0.1	0.36	0.44	0.32	2	1	1	2	1	1
TC6=3,=2	0.1	0.0	0.0	0.18	0.00	0.00	1	0	0	1	0	0
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	0.3	0.1	0.2	0.54	0.44	0.63	4	1	2	2	1	2
24MPENTANE	0.7	0.3	0.5	1.26	1.33	1.58	9	4	6	5	3	4
BENZENE	1.9	0.4	1.4	3.43	1.78	4.43	21	5	16	13	3	10
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	1.4	0.6	1.0	2.53	2.67	3.16	17	9	13	11	5	8
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.5	0.2	0.3	0.90	0.89	0.95	6	3	4	4	2	2
224MPENTAN	3.4	1.6	2.4	6.14	7.11	7.59	42	23	30	26	14	19
NHEPTANE	0.4	0.1	0.2	0.72	0.44	0.63	5	1	3	3	1	2
MCYHEXANE	0.1	0.0	0.1	0.18	0.00	0.32	1	0	1	1	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	0.7	0.3	0.4	1.26	1.33	1.27	9	4	5	5	3	3
234MC5	0.7	0.3	0.4	1.26	1.33	1.27	9	4	5	5	3	3
TOLUENE	3.0	0.6	1.3	5.42	2.67	4.11	34	8	15	21	5	9
23MC6+4MC7	0.5	0.1	0.3	0.90	0.44	0.95	6	1	4	4	1	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140911
DATE RUN: 05 04 79 AIR CONDITIONER USED
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
34MHEXANE		0.5	0.2	0.3		0.90	0.89	0.95		6	3	4		4	2	2
3MHEPTANE		0.5	0.1	0.2		0.90	0.44	0.63		6	1	3		4	1	2
255MC6		0.5	0.2	0.3		0.90	0.89	0.95		6	3	4		4	2	2
N OCTANE		0.2	0.1	0.1		0.36	0.44	0.32		2	1	1		2	1	1
223MC6		0.1	0.0	0.0		0.18	0.00	0.00		1	0	0		1	0	0
ETCYHEXANE		0.1	0.0	0.1		0.18	0.00	0.32		1	0	1		1	0	1
ET BENZENE		0.5	0.1	0.2		0.90	0.44	0.63		6	1	2		4	1	1
M+PXYLENE		2.0	0.6	0.6		3.61	2.67	1.90		23	8	7		14	5	4
24MC8		0.4	0.1	0.2		0.72	0.44	0.63		5	1	3		3	1	2
O XYLENE		0.8	0.2	0.2		1.44	0.89	0.63		9	3	2		6	2	1
N NONANE		0.3	0.1	0.1		0.54	0.44	0.32		4	1	1		2	1	1
IPRBENZENE		0.2	0.1	0.1		0.36	0.44	0.32		2	1	1		1	1	1
NPRBENZENE		0.1	0.0	0.0		0.18	0.00	0.00		1	0	0		1	0	0
1M3ETBENZ		0.6	0.3	0.2		1.08	1.33	0.63		7	4	2		4	3	1
135MEBENZ		0.3	0.2	0.0		0.54	0.89	0.00		3	3	0		2	2	0
1M2ETBENZ		0.4	0.2	0.3		0.72	0.89	0.95		5	3	4		3	2	2
124MBENZ		0.9	0.8	0.3		1.62	3.56	0.95		10	11	4		6	7	2
SBUBENZENE		0.2	0.1	0.1		0.36	0.44	0.32		2	1	1		1	1	1
N DECANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
123MBENZ		0.2	0.2	0.1		0.36	0.89	0.32		2	3	1		1	2	1
INDANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
13EBENZENE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
NBUBENZENE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
1M3PRBENZ		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
UNKNOWNS		1.6	1.1	0.1		2.89	4.89	0.32		18	15	1		11	9	1

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140912
DATE RUN: 05 11 79 AIR CONDITIONER USED
CAR: 1979 DODGE ASPEN CALIF. VIN: ML29C9B158640 DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 90

HYDROCARBON CONCENTNATION	BAG1	BAG2	BAG3
FID PPMC	97.6	26.9	64.1
GC PPMC	83.9	24.3	52.5

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
				MAJOR COMPONENTS								
METHANE	23.9	11.1	14.8	28.49	45.68	28.19	343	184	213	213	114	132
SATURATES	26.5	10.5	23.3	31.59	43.21	44.38	340	156	300	211	97	187
OLEFINS	9.0	0.7	3.8	10.73	2.88	7.24	113	10	48	70	6	30
ACETYLENE	1.5	0.0	0.0	1.79	0.00	0.00	17	0	0	11	0	0
NAPTHENES	1.3	0.2	0.8	1.55	0.82	1.52	16	3	10	10	2	6
AROMATICS	17.6	1.5	8.4	20.98	6.17	16.00	207	20	99	129	13	62
BENZENE	3.9	0.6	2.3	4.65	2.47	4.38	45	8	27	28	5	17
TOLUENE	4.8	0.6	2.5	5.72	2.47	4.76	57	8	30	35	5	18
C8+AROM	8.9	0.3	3.6	10.61	1.23	6.86	106	4	43	66	3	27
UNKNOWN	4.1	0.3	1.4	0.00	0.00	0.00	49	4	17	31	3	10
				INDIVIDUAL COMPONENTS								
METHANE	23.9	11.1	14.8	28.49	45.68	28.19	343	184	213	213	114	132
ETHYLENE	5.4	0.6	2.6	6.44	2.47	4.95	68	9	33	42	5	20
ETHANE	1.6	1.1	1.5	1.91	4.53	2.86	21	17	20	13	11	13
ACETYLENE	1.5	0.0	0.0	1.79	0.00	0.00	17	0	0	11	0	0
C3 + C3=	2.2	0.1	0.7	2.62	0.41	1.33	28	1	9	17	1	5
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.3	0.2	0.2	0.36	0.82	0.38	4	3	3	2	2	2
B1 + IB	0.5	0.0	0.0	0.60	0.00	0.00	6	0	0	4	0	0
NC4 +B=1=3	2.2	1.2	2.2	2.62	4.94	4.19	29	18	29	18	11	18
TBUTENE-2	0.2	0.0	0.1	0.24	0.00	0.19	3	0	1	2	0	1
22MPROPANE	0.2	0.0	0.0	0.24	0.00	0.00	3	0	0	2	0	0
CBUTENE-2	0.0	0.0	0.1	0.00	0.00	0.19	0	0	1	0	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	1.8	1.2	2.2	2.15	4.94	4.19	23	18	29	14	11	18
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	0.5	0.3	0.5	0.60	1.23	0.95	6	4	6	4	3	4
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140912
DATE RUN: 05 11 79 AIR CONDITIONER USED
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B156640 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.1	0.0	0.1	0.12	0.00	0.19	1	0	1	1	0	1
CISPENT=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT=2	0.2	0.0	0.2	0.24	0.00	0.38	3	0	3	2	0	2
22MBUTANE	0.1	0.1	0.2	0.12	0.41	0.38	1	1	3	1	1	2
CYPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
23MBUTANE	0.4	0.2	0.4	0.48	0.82	0.76	5	3	5	3	2	3
2MPENTANE	0.9	0.4	0.9	1.07	1.65	1.71	12	6	12	7	4	7
3MPENTANE	0.6	0.4	0.8	0.72	1.65	1.52	8	6	10	5	4	6
HEXENE=1	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
N HEXANE	0.4	0.1	0.4	0.48	0.41	0.76	5	1	5	3	1	3
TC6=3=2	0.2	0.0	0.0	0.24	0.00	0.00	3	0	0	2	0	0
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	0.5	0.1	0.4	0.60	0.41	0.76	6	1	5	4	1	3
24MPENTANE	1.0	0.3	0.9	1.19	1.23	1.71	13	4	12	8	3	7
BENZENE	3.9	0.6	2.3	4.65	2.47	4.38	45	8	27	28	5	17
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	2.3	0.8	2.1	2.74	3.29	4.00	29	12	27	18	7	17
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.8	0.3	0.8	0.95	1.23	1.52	10	4	10	6	3	6
224MPENTAN	5.2	2.0	4.8	6.20	8.23	9.14	66	29	62	41	18	38
NHEPTANE	0.8	0.3	0.7	0.95	1.23	1.33	10	4	9	6	3	6
MCYHEXANE	0.2	0.1	0.2	0.24	0.41	0.38	3	1	3	2	1	2
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.0	0.3	0.8	1.19	1.23	1.52	13	4	10	8	3	6
234MC5	1.1	0.3	0.9	1.31	1.23	1.71	14	4	12	9	3	7
TOLUENE	4.8	0.6	2.5	5.72	2.47	4.76	57	8	30	35	5	18
23MC6+4MC7	0.7	0.2	0.5	0.83	0.82	0.95	9	3	6	6	2	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 140912
DATE RUN: 05 11 79 AIR CONDITIONER USED
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	0.8	0.2	0.6	0.95	0.82	1.14	10	3	8	6	2	5
3MHEPTANE	0.8	0.2	0.5	0.95	0.82	0.95	10	3	6	6	2	4
255MC6	0.9	0.2	0.5	1.07	0.82	0.95	11	3	6	7	2	4
N OCTANE	0.6	0.1	0.3	0.72	0.41	0.57	8	1	4	5	1	2
223MC6	0.4	0.0	0.1	0.48	0.00	0.19	5	0	1	3	0	1
ETCYHEXANE	0.5	0.0	0.2	0.60	0.00	0.38	6	0	3	4	0	2
ET BENZENE	1.0	0.0	0.3	1.19	0.00	0.57	12	0	4	7	0	2
M+PXYLENE	3.1	0.2	1.2	3.69	0.82	2.29	37	3	14	23	2	9
244MC8	0.6	0.1	0.3	0.72	0.41	0.57	8	1	4	5	1	2
O XYLENE	1.3	0.1	0.5	1.55	0.41	0.95	15	1	6	10	1	4
N NONANE	0.5	0.0	0.2	0.60	0.00	0.38	6	0	3	4	0	2
IPRBENZENE	0.4	0.0	0.2	0.48	0.00	0.38	5	0	2	3	0	1
NPRBENZENE	0.1	0.0	0.1	0.12	0.00	0.19	1	0	1	1	0	1
1M3ETBENZ	0.8	0.0	0.3	0.95	0.00	0.57	10	0	4	6	0	2
135MEBENZ	0.4	0.0	0.1	0.48	0.00	0.19	5	0	1	3	0	1
1M2ETBENZ	0.4	0.0	0.3	0.48	0.00	0.57	5	0	4	3	0	2
124MBENZ	0.9	0.0	0.4	1.07	0.00	0.76	11	0	5	7	0	3
SBUBENZENE	0.1	0.0	0.1	0.12	0.00	0.19	1	0	1	1	0	1
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.2	0.0	0.1	0.24	0.00	0.19	2	0	1	1	0	1
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
UNKNOWNS	4.1	0.3	1.4	4.89	1.23	2.67	49	4	17	31	3	10

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 141101
DATE RUN: 05 07 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B15R640 DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	90.2	33.1	61.6
GC PPMC	70.0	29.6	54.6

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	21.7	10.7	18.2	31.00	41.80	33.33	344	229	248	214	142	154
SATURATES	20.0	11.1	21.6	28.57	43.36	39.56	284	213	264	176	132	164
OLEFINS	7.6	1.3	4.3	10.86	5.08	7.88	105	24	51	65	15	32
ACETYLENE	1.5	0.0	0.0	2.14	0.00	0.00	19	0	0	12	0	0
NAPTHENES	0.7	0.3	0.5	1.00	1.17	0.92	10	6	6	6	3	4
AROMATICS	15.8	1.8	8.4	22.57	7.03	15.38	205	32	94	128	20	58
BENZENE	2.5	0.7	2.6	3.57	2.73	4.76	32	12	29	20	8	18
TOLUENE	4.1	0.7	2.4	5.86	2.73	4.40	53	12	27	33	8	17
C8+AROM	9.2	0.4	3.4	13.14	1.56	6.23	122	7	39	76	4	24
UNKNOWN	2.7	0.4	1.6	0.00	0.00	0.00	36	7	18	22	4	11
INDIVIDUAL COMPONENTS												
METHANE	21.7	10.7	18.2	31.00	41.80	33.33	344	229	248	214	142	154
ETHYLENE	4.3	1.1	3.1	6.14	4.30	5.68	60	21	37	37	13	23
ETHANE	1.4	1.1	1.7	2.00	4.30	3.11	21	22	22	13	14	14
ACETYLENE	1.5	0.0	0.0	2.14	0.00	0.00	19	0	0	12	0	0
C3 + C3=	1.9	0.2	0.9	2.71	0.78	1.65	26	4	11	16	2	7
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.1	0.2	0.2	0.14	0.78	0.37	1	4	2	1	2	2
B1 + IB	0.5	0.0	0.0	0.71	0.00	0.00	7	0	0	4	0	0
NC4 +B=1=3	1.8	1.3	2.4	2.57	5.08	4.40	26	25	30	16	16	18
TBUTENE-2	0.2	0.0	0.1	0.29	0.00	0.18	3	0	1	2	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.1	0.0	0.1	0.14	0.00	0.18	1	0	1	1	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.14	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	1.5	1.1	2.0	2.14	4.30	3.66	21	21	25	13	13	15
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	0.4	0.2	0.4	0.57	0.78	0.73	6	4	5	4	2	3
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 141101
DATE RUN: 05 07 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9U158640 DRIVER: MYLK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.1	0.0	0.0	0.14	0.00	0.00	1	0	0	1	0	0
CISPENT-2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-2	0.2	0.0	0.1	0.29	0.00	0.18	3	0	1	2	0	1
22MBUTANE	0.1	0.1	0.1	0.14	0.39	0.18	1	2	1	1	1	1
CYPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.0	0.14	0.00	0.00	1	0	0	1	0	0
23MBUTANE	0.4	0.2	0.4	0.57	0.78	0.73	6	4	5	4	2	3
2MPENTANE	0.7	0.4	0.8	1.00	1.56	1.47	10	8	10	6	5	6
3MPENTANE	0.5	0.3	0.6	0.71	1.17	1.10	7	6	7	4	4	5
MEXENE-1	0.1	0.0	0.0	0.14	0.00	0.00	1	0	0	1	0	0
N HEXANE	0.3	0.2	0.3	0.43	0.78	0.55	4	4	4	3	2	2
TC6=3,=2	0.1	0.0	0.0	0.14	0.00	0.00	1	0	0	1	0	0
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	0.3	0.2	0.3	0.43	0.78	0.55	4	4	4	3	2	2
24MPENTANE	0.7	0.4	0.8	1.00	1.56	1.47	10	8	10	6	5	6
BENZENE	2.5	0.7	2.6	3.57	2.73	4.76	32	12	29	20	8	18
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	1.7	0.9	1.9	2.43	3.52	3.48	24	17	23	15	11	14
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.6	0.3	0.7	0.86	1.17	1.28	8	6	9	5	4	5
224MPENTAN	4.0	2.4	4.3	5.71	9.38	7.88	56	46	52	35	28	32
NHEPTANE	0.5	0.2	0.5	0.71	0.78	0.92	7	4	6	4	2	4
MCYHEXANE	0.1	0.1	0.1	0.14	0.39	0.18	1	2	1	1	1	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	0.8	0.4	0.8	1.14	1.56	1.47	11	8	10	7	5	6
234MC5	0.9	0.4	0.8	1.29	1.56	1.47	13	8	10	8	5	6
TOLUENE	4.1	0.7	2.4	5.86	2.73	4.40	53	12	27	33	8	17
23MC6+4MC7	0.6	0.2	0.5	0.86	0.78	0.92	8	4	6	5	2	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 141101
DATE RUN: 05 07 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9U159640 DRIVER: MYER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	0.6	0.2	0.5	0.86	0.78	0.92	8	4	6	5	2	4
3MHEPTANE	0.5	0.2	0.5	0.71	0.78	0.92	7	4	6	4	2	4
255MC6	0.6	0.2	0.5	0.86	0.78	0.92	8	4	6	5	2	4
N OCTANE	0.3	0.1	0.3	0.43	0.39	0.55	4	2	4	3	1	2
223MC6	0.1	0.0	0.1	0.14	0.00	0.18	1	0	1	1	0	1
ETCYHEXANE	0.2	0.0	0.1	0.29	0.00	0.18	3	0	1	2	0	1
ET BENZENE	0.7	0.1	0.2	1.00	0.39	0.37	9	2	2	6	1	1
M+PXYLENE	3.0	0.2	1.0	4.29	0.78	1.83	39	4	11	24	2	7
24MC6	0.5	0.1	0.3	0.71	0.39	0.55	7	2	4	4	1	2
O XYLENE	1.2	0.1	0.4	1.71	0.39	0.73	16	2	5	10	1	3
N NONANE	0.4	0.0	0.2	0.57	0.00	0.37	6	0	2	3	0	2
IPRBENZENE	0.3	0.0	0.2	0.43	0.00	0.37	4	0	2	2	0	1
NPRBENZENE	0.2	0.0	0.0	0.29	0.00	0.00	3	0	0	2	0	0
1M3ETBENZ	1.0	0.0	0.1	1.43	0.00	0.18	13	0	1	8	0	1
135MEBENZ	0.4	0.0	0.2	0.57	0.00	0.37	5	0	2	3	0	1
1M2ETBENZ	0.4	0.0	0.5	0.57	0.00	0.92	5	0	6	3	0	4
124MBENZ	1.5	0.0	0.5	2.14	0.00	0.92	20	0	6	12	0	4
SBURENZENE	0.2	0.0	0.1	0.29	0.00	0.18	3	0	1	2	0	1
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.3	0.0	0.2	0.43	0.00	0.37	4	0	2	2	0	1
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBURENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1M3PRBENZ	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
UNKNOWNS	2.7	0.4	1.6	3.86	1.56	2.93	36	7	18	22	4	11

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 141102
DATE RUN: 05 10 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	101.2	30.4	54.7
GC PPMC	86.7	27.1	56.5

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	23.4	11.7	17.7	26.99	43.17	31.33	333	200	197	207	124	123
SATURATES	26.4	10.8	22.7	30.45	39.85	40.18	337	165	226	209	103	141
OLEFINS	6.9	1.2	4.2	10.27	4.43	7.43	111	18	41	69	11	25
ACETYLENE	2.2	0.0	0.0	2.54	0.00	0.00	25	0	0	16	0	0
NAPTHENES	0.9	0.2	0.6	1.04	0.74	1.06	11	3	6	7	2	4
AROMATICS	20.7	3.0	9.9	23.88	11.07	17.52	242	42	91	150	26	56
BENZENE	2.9	0.7	2.9	3.34	2.58	5.13	34	10	26	21	6	16
TOLUENE	5.5	0.8	2.8	6.34	2.95	4.96	64	11	26	40	7	16
C8+AROM	12.3	1.5	4.2	14.19	5.54	7.43	146	21	39	91	13	24
UNKNOWN	4.2	0.2	1.4	0.00	0.00	0.00	50	3	13	31	2	8
INDIVIDUAL COMPONENTS												
METHANE	23.4	11.7	17.7	26.99	43.17	31.33	333	200	197	207	124	123
ETHYLENE	4.9	0.9	2.8	5.65	3.32	4.96	61	13	27	38	8	17
ETHANE	1.9	1.2	1.7	2.19	4.43	3.01	25	19	18	16	12	11
ACETYLENE	2.2	0.0	0.0	2.54	0.00	0.00	25	0	0	16	0	0
C3 + C3=	2.2	0.3	1.1	2.54	1.11	1.95	27	4	11	17	3	7
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.3	0.2	0.4	0.35	0.74	0.71	4	3	4	2	2	3
B1 + 1B	0.5	0.0	0.0	0.58	0.00	0.00	6	0	0	4	0	0
NC4 +B=1=3	2.5	1.6	2.8	2.88	5.90	4.96	32	25	28	20	15	18
TBUTENE-2	0.3	0.0	0.1	0.35	0.00	0.18	4	0	1	2	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.1	0.23	0.00	0.18	2	0	1	2	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	1.5	1.2	2.0	1.73	4.43	3.54	19	18	20	12	11	12
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	0.4	0.3	0.5	0.46	1.11	0.88	5	5	5	3	3	3
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 141102
DATE RUN: 05 10 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B15R640 DRIVER: HYER FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
CISPENT-2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-2	0.2	0.0	0.1	0.23	0.00	0.18	2	0	1	2	0	1
22MBUTANE	0.4	0.3	0.5	0.46	1.11	0.88	5	5	5	3	3	3
CYPLNTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
23MBUTANE	0.3	0.1	0.3	0.35	0.37	0.53	4	2	3	2	1	2
2MPENTANE	0.8	0.4	0.8	0.92	1.48	1.42	10	6	8	6	4	5
3MPENTANE	0.5	0.3	1.6	0.58	1.11	2.83	6	5	16	4	3	10
HEXENE-1	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
N HEXANE	0.4	0.2	0.6	0.46	0.74	1.06	5	3	6	3	2	4
TC6=3,=2	0.2	0.0	0.0	0.23	0.00	0.00	2	0	0	2	0	0
CC6=3	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	0.4	0.1	0.4	0.46	0.37	0.71	5	1	4	3	1	2
24MPENTANE	0.9	0.3	0.8	1.04	1.11	1.42	11	5	8	7	3	5
BENZENE	2.9	0.7	2.9	3.34	2.58	5.13	34	10	26	21	6	16
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	2.1	0.7	1.6	2.42	2.58	2.83	27	11	16	17	7	10
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.7	0.2	0.6	0.81	0.74	1.06	9	3	6	6	2	4
224MPENTAN	5.2	1.9	4.0	6.00	7.01	7.08	66	29	40	41	18	25
NHEPTANE	0.8	0.2	0.5	0.92	0.74	0.88	10	3	5	6	2	3
MCYHEXANE	0.2	0.1	0.1	0.23	0.37	0.18	2	1	1	2	1	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.2	0.3	0.7	1.38	1.11	1.24	15	5	7	9	3	4
234MC5	1.3	0.3	0.8	1.50	1.11	1.42	16	5	8	10	3	5
TOLUENE	5.5	0.8	2.8	6.34	2.95	4.96	64	11	26	40	7	16
23MC6+4MC7	0.8	0.2	0.4	0.92	0.74	0.71	10	3	4	6	2	2

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 141102
DATE RUN: 05 10 79
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B156640 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
34MHEXANE	0.9	0.2	0.5	1.04	0.74	0.88	11	3	5	7	2	3
3MHEPTANE	0.8	0.2	0.4	0.92	0.74	0.71	10	3	4	6	2	2
255MC6	0.9	0.2	0.4	1.04	0.74	0.71	11	3	4	7	2	2
N OCTANE	0.5	0.1	0.2	0.58	0.37	0.35	6	2	2	4	1	1
223MC6	0.1	0.0	0.1	0.12	0.00	0.18	1	0	1	1	0	1
ETCYHEXANE	0.3	0.0	0.1	0.35	0.00	0.18	4	0	1	2	0	1
ET BENZENE	1.0	0.1	0.3	1.15	0.37	0.53	12	1	3	7	1	2
M+PXYLENE	4.0	0.4	1.4	4.61	1.48	2.48	47	6	13	29	4	8
24MC8	0.7	0.1	0.3	0.81	0.37	0.53	9	2	3	6	1	2
O XYLENE	1.8	0.2	0.6	2.08	0.74	1.06	21	3	6	13	2	3
N NONANE	0.5	0.1	0.2	0.58	0.37	0.35	6	2	2	4	1	1
IPRBENZENE	0.4	0.1	0.2	0.46	0.37	0.35	5	1	2	3	1	1
NPRBENZENE	0.2	0.0	0.1	0.23	0.00	0.18	2	0	1	1	0	1
1M3ETBENZ	1.3	0.1	0.4	1.50	0.37	0.71	15	1	4	10	1	2
135MEBENZ	0.5	0.1	0.2	0.58	0.37	0.35	6	1	2	4	1	1
1M2ETBENZ	0.6	0.1	0.3	0.69	0.37	0.53	7	1	3	4	1	2
124MBENZ	1.6	0.3	0.5	1.85	1.11	0.88	19	4	5	12	3	3
SBUBENZENE	0.3	0.1	0.1	0.35	0.37	0.18	4	1	1	2	1	1
N DECANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
123MBENZ	0.4	0.0	0.1	0.46	0.00	0.18	5	0	1	3	0	1
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13EBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
1M3PRBENZ	0.1	0.0	0.0	0.12	0.00	0.00	1	0	0	1	0	0
UNKNOWNS	4.2	0.2	1.4	4.84	0.74	2.48	50	3	13	31	2	8

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 141111
DATE RUN: 05 08 79 AIR CONDITIONER USED
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B15A640 DRIVER: HYEK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	107.0	27.1	64.3
GC PPMC	97.3	25.9	59.3

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
MAJOR COMPONENTS												
METHANE	28.8	12.5	19.6	29.60	48.26	33.05	390	213	260	243	132	161
SATURATES	26.1	8.0	22.9	26.82	30.89	38.62	317	122	272	197	76	169
OLEFINS	12.7	1.0	4.2	13.05	3.86	7.08	151	15	49	94	9	30
ACETYLENE	1.9	0.0	0.0	1.95	0.00	0.00	21	0	0	13	0	0
NAPTHENES	1.1	0.1	0.9	1.13	0.39	1.52	13	1	10	8	1	6
AROMATICS	22.4	3.3	10.3	23.02	12.74	17.37	249	46	112	155	29	70
BENZENE	5.2	0.8	3.7	5.34	3.09	6.24	57	11	40	36	7	25
TOLUENE	5.7	0.7	2.9	5.86	2.70	4.89	63	10	32	39	6	20
C8+ARUM	11.5	1.8	3.7	11.82	6.95	6.24	130	26	41	81	16	25
UNKNOWN	4.3	1.0	1.4	0.00	0.00	0.00	49	14	16	30	9	10
INDIVIDUAL COMPONENTS												
METHANE	28.8	12.5	19.6	29.60	48.26	33.05	390	213	260	243	132	161
ETHYLENE	7.0	0.7	2.9	7.19	2.70	4.89	83	10	34	52	6	21
ETHANE	1.8	1.0	1.3	1.85	3.86	2.19	23	16	16	14	10	10
ACETYLENE	1.9	0.0	0.0	1.95	0.00	0.00	21	0	0	13	0	0
C3 + C3=	2.9	0.3	1.0	2.98	1.16	1.69	34	4	12	21	3	7
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.2	0.2	0.2	0.21	0.77	0.34	2	3	2	2	2	1
B1 + 1B	0.9	0.0	0.0	0.92	0.00	0.00	11	0	0	7	0	0
NC4 +B=1=3	2.3	1.1	2.5	2.36	4.25	4.22	28	17	30	18	11	19
TBUTENE-2	0.3	0.0	0.1	0.31	0.00	0.17	4	0	1	2	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.2	0.0	0.1	0.21	0.00	0.17	2	0	1	1	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	1.4	0.8	2.0	1.44	3.09	3.37	17	12	24	11	8	15
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	0.4	0.2	0.4	0.41	0.77	0.67	5	3	5	3	2	3
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO: 141111
DATE RUN: 05 08 79 AIR CONDITIONER USED
CAR: 1979 DODGE ASPEN CALIF. VIN: ML29C9B158640 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.2	0.0	0.0	0.21	0.00	0.00	2	0	0	1	0	0
CISPENT-2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-2	0.2	0.0	0.1	0.21	0.00	0.17	2	0	1	1	0	1
22MBUTANE	0.3	0.1	0.4	0.31	0.39	0.67	4	2	5	2	1	3
CYPENTENE	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.1	0.10	0.00	0.17	1	0	1	1	0	1
23MBUTANE	0.4	0.1	0.4	0.41	0.39	0.67	5	2	5	3	1	3
2MPENTANE	0.8	0.2	0.9	0.82	0.77	1.52	10	3	11	6	2	7
3MPENTANE	0.6	0.2	0.8	0.62	0.77	1.35	7	3	9	5	2	6
HEXENE-1	0.3	0.0	0.0	0.31	0.00	0.00	4	0	0	2	0	0
N HEXANE	0.5	0.1	0.3	0.51	0.39	0.51	6	2	4	4	1	2
TC6=3,=2	0.4	0.0	0.0	0.41	0.00	0.00	5	0	0	3	0	0
CC6=3	0.1	0.0	0.0	0.10	0.00	0.00	1	0	0	1	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	0.5	0.1	0.4	0.51	0.39	0.67	6	1	5	4	1	3
24MPENTANE	1.1	0.3	0.9	1.13	1.16	1.52	13	5	11	8	3	7
BENZENE	5.2	0.8	3.7	5.34	3.09	6.24	57	11	40	36	7	25
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	2.2	0.6	2.0	2.26	2.32	3.37	27	9	24	17	6	15
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.8	0.2	0.7	0.82	0.77	1.18	10	3	8	6	2	5
224MPENTAN	5.3	1.6	4.6	5.45	6.18	7.76	64	24	54	40	15	34
NHEPTANE	0.8	0.1	0.6	0.82	0.39	1.01	10	2	7	6	1	4
MCYHEXANE	0.2	0.0	0.2	0.21	0.00	0.34	2	0	2	1	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.1	0.2	0.8	1.13	0.77	1.35	13	3	9	8	2	6
234MC5	1.2	0.2	0.9	1.23	0.77	1.52	14	3	11	9	2	7
TOLUENE	5.7	0.7	2.9	5.86	2.70	4.89	63	10	32	39	6	20
23MC6+4MC7	0.8	0.1	0.5	0.82	0.39	0.84	10	2	6	6	1	4

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 141111
DATE RUN: 05 08 79 AIR CONDITIONER USED
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B15R640 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC				% OF TOTAL CARBON				MG/MILE				MG/KM			
	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3	BAG	1	2	3
34MHEXANE		0.9	0.2	0.6		0.92	0.77	1.01		11	3	7		7	2	4
3MHEPTANE		0.8	0.1	0.5		0.82	0.39	0.84		10	2	6		6	1	4
255MC6		0.8	0.1	0.5		0.82	0.39	0.84		10	2	6		6	1	4
N OCTANE		0.5	0.1	0.3		0.51	0.39	0.51		6	2	4		4	1	2
223MC6		0.1	0.0	0.1		0.10	0.00	0.17		1	0	1		1	0	1
ETCYHEXANE		0.3	0.0	0.2		0.31	0.00	0.34		4	0	2		2	0	1
ET BENZENE		1.0	0.1	0.3		1.03	0.39	0.51		11	1	3		7	1	2
M+PXYLENE		3.8	0.4	1.4		3.91	1.54	2.36		43	6	15		26	3	10
2+4MC8		0.6	0.1	0.4		0.62	0.39	0.67		7	2	5		4	1	3
O XYLENE		1.7	0.2	0.5		1.75	0.77	0.84		19	3	5		12	2	3
N NONANE		0.4	0.1	0.3		0.41	0.39	0.51		5	2	4		3	1	2
IPRBENZENE		0.4	0.1	0.2		0.41	0.39	0.34		5	1	2		3	1	1
NPRBENZENE		0.2	0.0	0.0		0.21	0.00	0.00		2	0	0		1	0	0
1M3ETBENZ		1.2	0.2	0.3		1.23	0.77	0.51		14	3	3		8	2	2
135MEBENZ		0.5	0.1	0.1		0.51	0.39	0.17		6	1	1		4	1	1
1M2ETBENZ		0.5	0.1	0.3		0.51	0.39	0.51		6	1	3		4	1	2
124MBENZ		1.5	0.4	0.4		1.54	1.54	0.67		17	6	4		11	4	3
SBUBENZENE		0.3	0.1	0.1		0.31	0.39	0.17		3	1	1		2	1	1
N DECANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
123MBENZ		0.4	0.1	0.1		0.41	0.39	0.17		5	1	1		3	1	1
INDANE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
13EBENZENE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
NBUBENZENE		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
1M3PRBENZ		0.0	0.0	0.0		0.00	0.00	0.00		0	0	0		0	0	0
UNKNOWNS		4.3	1.0	1.4		4.42	3.86	2.36		49	14	16		30	9	10

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 141112
DATE RUN: 05 09 79 AIR CONDITIONER USED
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVER: HYLK FUEL: SUMMER

GAS CHROMATOGRAPHIC DATA FROM THE FEDERAL TEST PROCEDURE

TEST TEMPERATURE = 110

HYDROCARBON CONCENTRATION	BAG1	BAG2	BAG3
FID PPMC	110.2	25.3	62.1
GC PPMC	92.6	20.3	49.4

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
MAJOR COMPONENTS												
METHANE	28.0	10.4	16.1	30.24	51.23	32.59	415	211	249	258	131	155
SATURATES	26.1	7.2	20.2	28.19	35.47	40.89	346	131	280	215	81	174
OLEFINS	12.4	0.8	3.4	13.39	3.94	6.88	161	14	46	100	9	29
ACETYLENE	1.6	0.0	0.0	1.73	0.00	0.00	19	0	0	12	0	0
NAPTHENES	1.0	0.1	0.5	1.08	0.49	1.01	13	2	7	8	1	4
AROMATICS	20.2	1.7	8.3	21.81	8.37	16.80	246	28	105	153	18	66
BENZENE	4.9	0.8	2.8	5.29	3.94	5.67	59	13	35	37	8	22
TOLUENE	5.4	0.6	2.4	5.83	2.96	4.86	66	10	30	41	6	19
C8+AROM	9.9	0.3	3.1	10.69	1.48	6.28	122	5	40	76	3	25
UNKNOWN	3.3	0.1	0.9	0.00	0.00	0.00	41	2	12	25	1	7
INDIVIDUAL COMPONENTS												
METHANE	28.0	10.4	16.1	30.24	51.23	32.59	415	211	249	258	131	155
ETHYLENE	7.1	0.6	2.4	7.67	2.96	4.86	92	11	32	57	7	20
ETHANE	1.8	1.0	1.3	1.94	4.93	2.63	25	19	19	16	12	12
ACETYLENE	1.6	0.0	0.0	1.73	0.00	0.00	19	0	0	12	0	0
C3 + C3=	2.8	0.2	0.7	3.02	0.99	1.42	36	4	9	23	2	6
C=C=C	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
METHACETYL	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
ISOBUTANE	0.3	0.1	0.2	0.32	0.49	0.48	4	2	3	3	1	2
B1 + IB	0.9	0.0	0.0	0.97	0.00	0.00	12	0	0	7	0	0
NC4 +B=1=3	2.4	1.0	2.2	2.59	4.93	4.45	32	18	31	20	11	19
TBUTENE-2	0.3	0.0	0.1	0.32	0.00	0.20	4	0	1	2	0	1
22MPROPANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CBUTENE-2	0.3	0.0	0.1	0.32	0.00	0.20	4	0	1	2	0	1
B=1=2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MB1	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
ISOPENTANE	1.6	0.7	1.9	1.73	3.45	3.85	21	13	26	13	8	16
PENTENE-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MBUT-1	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NPENTANE	0.5	0.2	0.4	0.54	0.99	0.81	7	4	6	4	2	3
2MB=1=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 141112
DATE RUN: 05 09 79 AIR CONDITIONER USED
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B158640 DRIVER: MYEK FUEL: SUMMER

COMPOUND NAME	PPMC			% OF TOTAL CARBON			MG/MILE			MG/KM		
	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3	BAG 1	2	3
TPENT=2	0.2	0.0	0.0	0.22	0.00	0.00	3	0	0	2	0	0
CISPENT-2	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
2MBUT-2	0.3	0.0	0.1	0.32	0.00	0.20	4	0	1	2	0	1
22MBUTANE	0.1	0.1	0.1	0.11	0.49	0.20	1	2	1	1	1	1
CYPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MPENTENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
CYPENTANE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
23MBUTANE	0.4	0.1	0.3	0.43	0.49	0.61	5	2	4	3	1	3
2MPENTANE	0.7	0.2	0.7	0.76	0.99	1.42	9	4	10	6	2	6
3MPENTANE	0.5	0.2	0.6	0.54	0.99	1.21	7	4	8	4	2	5
HEXENE-1	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
N HEXANE	0.4	0.1	0.3	0.43	0.49	0.61	5	2	4	3	1	3
TC6=3,=2	0.2	0.0	0.0	0.22	0.00	0.00	3	0	0	2	0	0
CC6=3	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MPENTENE2	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
MCYP43M2C5	0.4	0.1	0.3	0.43	0.49	0.61	5	2	4	3	1	3
24MPENTANE	1.0	0.2	0.8	1.08	0.99	1.62	13	4	11	8	2	7
BENZENE	4.9	0.8	2.8	5.29	3.94	5.67	59	13	35	37	8	22
CYHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
2MC6+23MC5	2.2	0.5	1.8	2.38	2.46	3.64	29	9	25	18	6	15
24MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
3MHEXANE	0.8	0.2	0.6	0.86	0.99	1.21	11	4	8	7	2	5
224MPENTAN	5.3	1.4	4.1	5.72	6.90	8.30	70	25	56	43	16	35
NHEPTANE	0.8	0.2	0.6	0.86	0.99	1.21	11	4	8	7	2	5
MCYHEXANE	0.2	0.0	0.1	0.22	0.00	0.20	3	0	1	2	0	1
25MHEXANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
24MC6+233M	1.1	0.2	0.8	1.19	0.99	1.62	15	4	11	9	2	7
234MC5	1.2	0.2	0.8	1.30	0.99	1.62	16	4	11	10	2	7
TOLUENE	5.4	0.6	2.4	5.83	2.96	4.86	66	10	30	41	6	19
23MC6+4MC7	0.6	0.1	0.4	0.86	0.49	0.81	11	2	6	7	1	3

EFFECT OF AMBIENT TEMPERATURE ON VEHICLE EMISSIONS AND PERFORMANCE FACTORS

TEST NO.: 141112
DATE RUN: 05 09 79 AIR CONDITIONER USED
CAR: 1979 DODGE ASPEN CALIF. VIN: NL29C9B15R640 DRIVER: HYEK FUEL: SUMMER

COMPOUND NAME	PPMC BAG 1	PPMC 2	PPMC 3	% OF TOTAL CARBON BAG 1	% OF TOTAL CARBON 2	% OF TOTAL CARBON 3	MG/MILE BAG 1	MG/MILE 2	MG/MILE 3	MG/KM BAG 1	MG/KM 2	MG/KM 3
34MHEXANE	0.9	0.1	0.5	0.97	0.49	1.01	12	2	7	7	1	4
3MHEPTANE	0.8	0.1	0.5	0.86	0.49	1.01	11	2	7	7	1	4
255MC6	0.8	0.1	0.5	0.86	0.49	1.01	11	2	7	7	1	4
N OCTANE	0.5	0.1	0.2	0.54	0.49	0.40	7	2	3	4	1	2
223MC6	0.1	0.0	0.1	0.11	0.00	0.20	1	0	1	1	0	1
ETCYHEXANE	0.3	0.0	0.1	0.32	0.00	0.20	4	0	1	2	0	1
ET BENZENE	0.9	0.0	0.3	0.97	0.00	0.61	11	0	4	7	0	2
M+PXYLENE	3.4	0.2	1.1	3.67	0.99	2.23	42	3	14	26	2	9
244MC8	0.6	0.1	0.3	0.65	0.49	0.61	8	2	4	5	1	3
O XYLENE	1.5	0.1	0.4	1.62	0.49	0.81	18	2	5	11	1	3
N NONANE	0.4	0.0	0.2	0.43	0.00	0.40	5	0	3	3	0	2
IPRBENZENE	0.4	0.0	0.2	0.43	0.00	0.40	5	0	3	3	0	2
NPRBENZENE	0.2	0.0	0.0	0.22	0.00	0.00	2	0	0	2	0	0
1M3ETBENZ	1.0	0.0	0.3	1.06	0.00	0.61	12	0	4	8	0	2
135MEBENZ	0.4	0.0	0.1	0.43	0.00	0.20	5	0	1	3	0	1
1M2ETBENZ	0.5	0.0	0.3	0.54	0.00	0.61	6	0	4	4	0	2
124MBENZ	1.2	0.0	0.3	1.30	0.00	0.61	15	0	4	9	0	2
SBUBENZENE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
N DECANE	0.1	0.0	0.0	0.11	0.00	0.00	1	0	0	1	0	0
123MBENZ	0.3	0.0	0.1	0.32	0.00	0.20	4	0	1	2	0	1
INDANE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
13DEBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
NBUBENZENE	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
1M3PRBENZ	0.0	0.0	0.0	0.00	0.00	0.00	0	0	0	0	0	0
UNKNOWNS	3.3	0.1	0.9	3.56	0.49	1.82	41	2	12	25	1	7